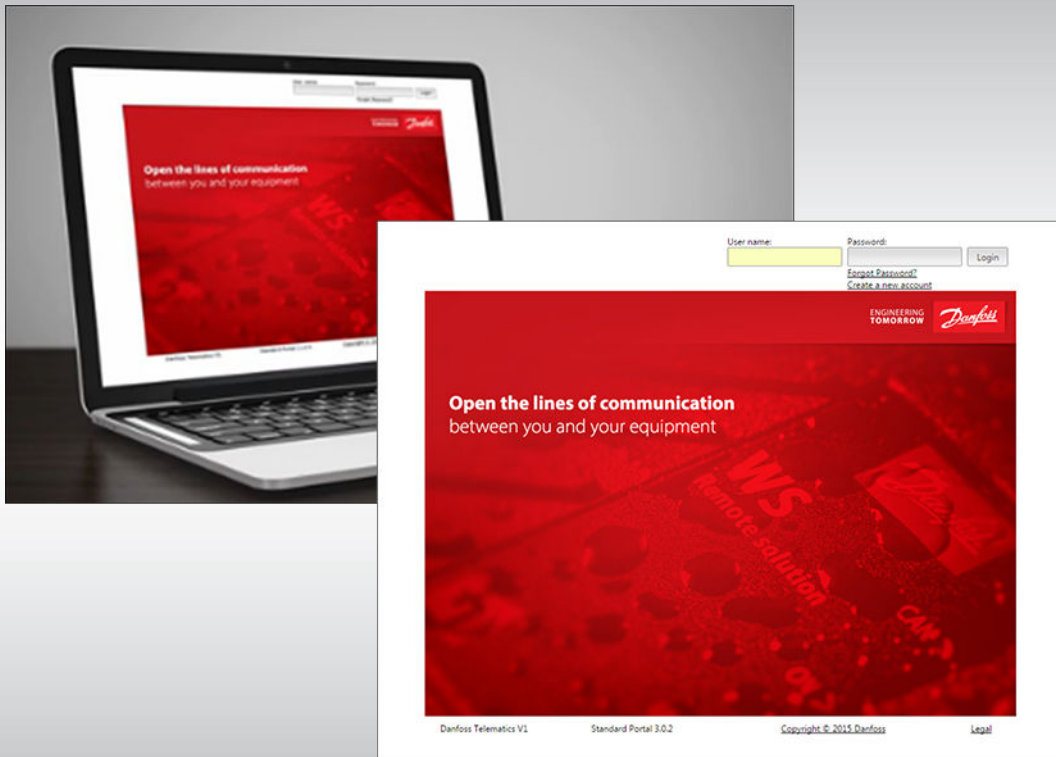




## User Manual

# Danfoss Telematics Solutions Portal



**Revision history***Table of revisions*

Date	Changed	Rev
September 2015	Danfoss layout	0000
May 2015	Review	AC
May 2015	Review	AB
May 2015	First version	AA

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## About this manual

### Information

This document provides important information on the intended use of Danfoss Telematics Solutions (DTS) portal. The manual is intended for qualified technicians with advanced knowledge in programming and software engineering. DTS supplies wide-ranging telematics systems for global access to control system data as well as extensive web based machines and fleet management. From remote maintenance and troubleshooting to location tracking reports through to theft protection with Geofencing, DTS offer numerous functions for comfortable management of machines and vehicle fleets, offers extensive web hosting and ensures smooth operation and top availability of its systems.

DTS provide a global overview of relevant machines, vehicle and driver data as well as their analysis, supplying the ideal basis for optimization of various processes and allow to increasing the efficiency and the productivity of different systems.

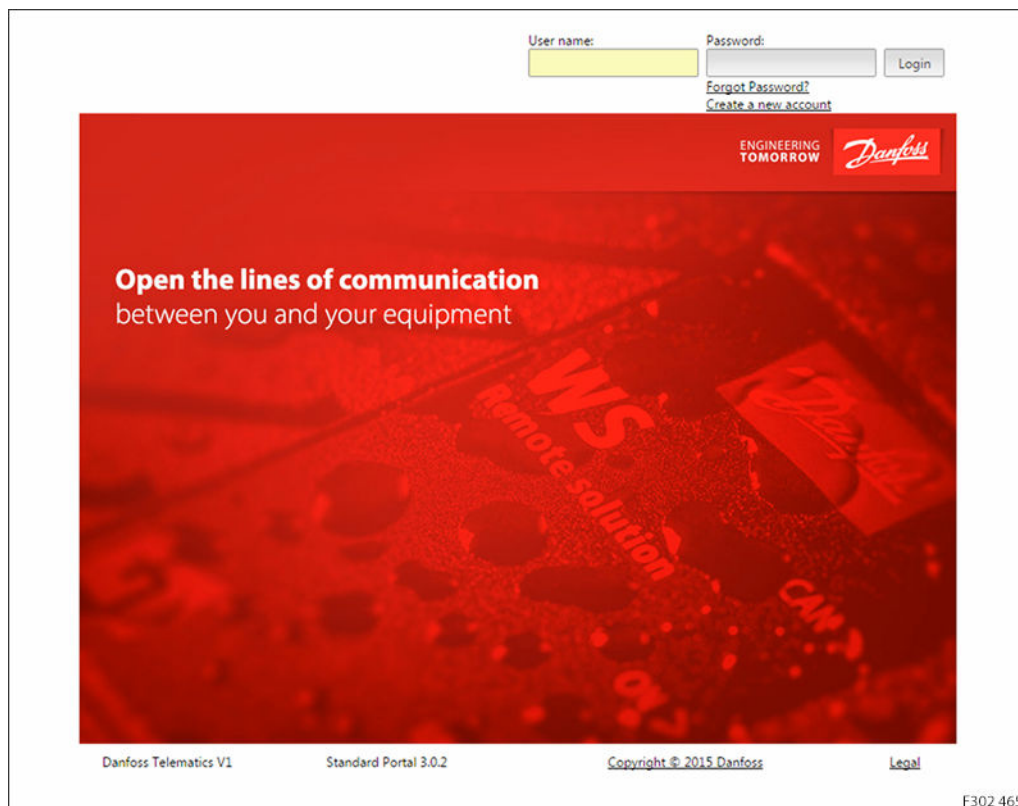
The manual frequently refers to *device* or *module*, these are synonyms for WS products.

The terms *machine* or *vehicle* are used similarly and denote a (mobile) object on which a WS product is mounted (assigned).

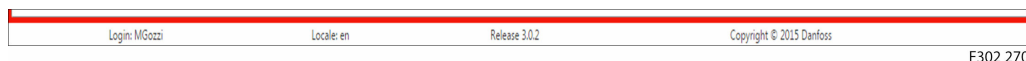
## General

### Web portal login

Users access the Danfoss Telematics Solutions via the login area on the DPS website telematics section or the DTS portal login site (URL: <https://danfoss.proemion.com/>).



After the login the user information are showed in the lower part of the display.



### Stated times

All times on the portal are stated according to the time zone configured by the user.

### Create a new user account

If you are a new DTS user, in order to set you up for using the automatic activation of WS devices, we need to create an account, create a customized web portal and link it to the DTS system.

If the DPS portal is not available for service/update/ technical reasons, the same registration form is available in DPS website, telematics section: [Request telematics web portal account](#)

1. Click on **Create a new user account** link located in the login page.

The following pop up window appear:

## General



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### 2. Fill in the form:

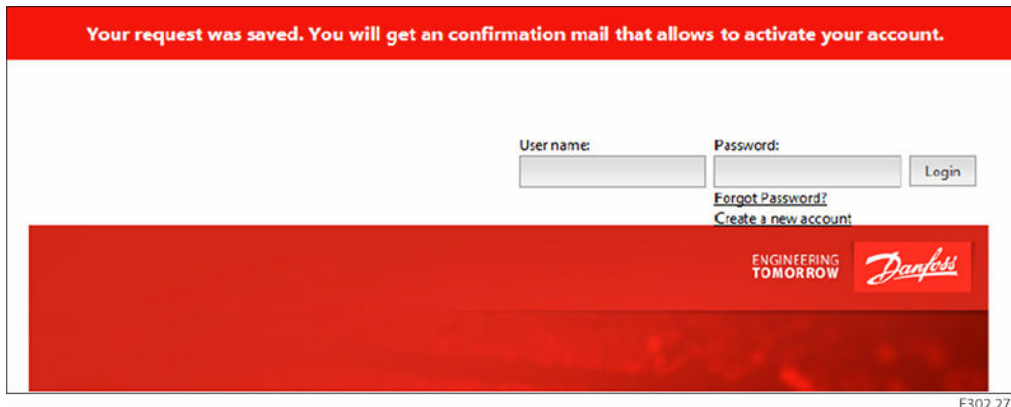
- |                     |  |
|---------------------|--|
| <b>Username:</b>    | user name for the login of the Administrator of the portal   |
| <b>Password:</b>    | password for the login of the Administrator of the portal  |
| <b>First name*:</b> | first name of the Administrator of the portal  |
| <b>Last name*:</b>  | last name of the Administrator of the portal   |
| <b>E-mail*:</b>     | email of the Administrator of the portal   |
| <b>Company*:</b>    | company name   |
| <b>Street*:</b>     | street where is addressed the company  |
| <b>ZIP Code*:</b>   | company ZIP code   |
| <b>City*:</b>       | City where is located the company  |
| <b>Country*:</b>    | Country where is located the company   |
| <b>TAX ID*:</b>     | Tax Identification Numbers assigned by the government <ul style="list-style-type: none"> <li>• VAT: Value Added Tax (EU)</li> <li>• FEIN: Federal Employer Identification Number (US)</li> <li>• BN: Business Number (Canada)</li> </ul> |

\* This data will be used to invoice the hosting cost of data plan assigned to WS devices during the activation on the DTS portal.

### 3. Push the button **Register** to send the request.

A confirmation message on top of the portal login page appear:

## General



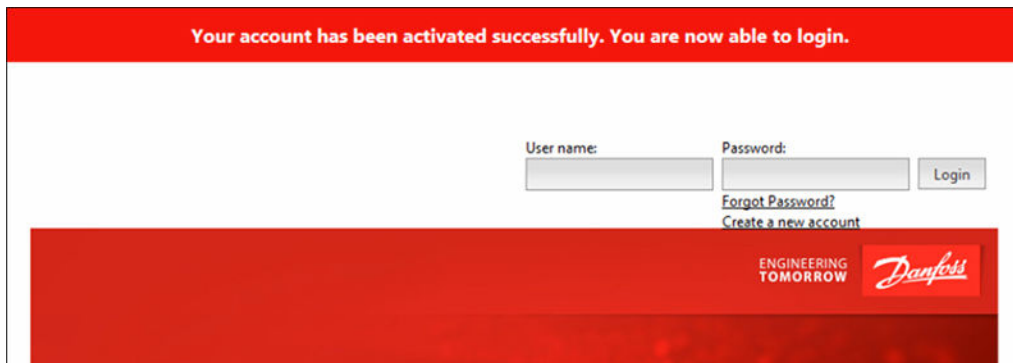
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After maximum 48h you will receive an e-mail that includes administrator login credentials and all the basic resources created in your customized portal.

## Activate new user account

A confirmation e-mail will be sent to confirm the identity of the user that requested the new account:

1. Click in the link included in the email to confirm the identity
2. If the link works correctly the login page is shown next
3. There is a special hint that the confirmation was accepted
4. Use username and password as typed in the signup form to login
5. After the first login we strongly recommend to change your password (section **Extras > Preferences**)



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To activate a new WS unit see [Activation form](#) on page 51.

## User name / password

Enter your user name and password to log in to the DTS portal.

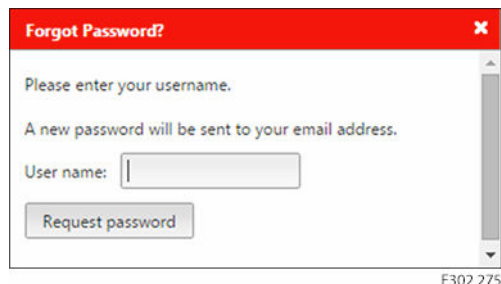
The administrator login credentials will be sent by email after the registration process.

## Forgot password

If you have forgotten your password, click on **Forgot password?** link



## General



**Forgot Password?**

Please enter your username.

A new password will be sent to your email address.

User name:

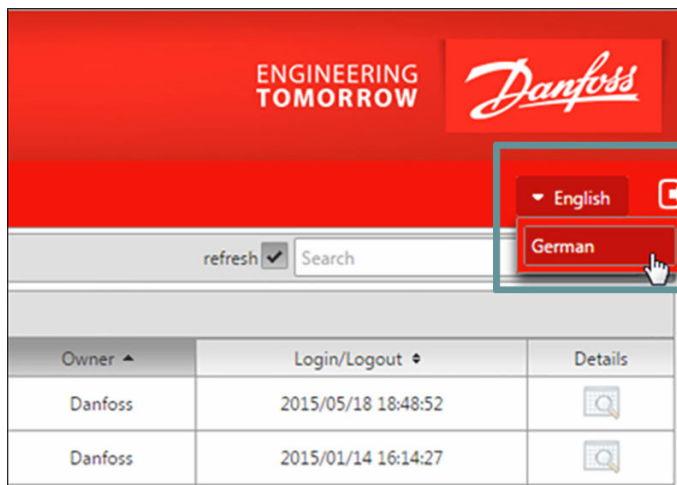
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Enter your user name and click on **Request password** push button. You will receive an e-mail that includes an activation code to your DTS user email address.

## Language selection

The user can choose between English (default language) and German as specific user language for the DTS portal.

1. Click on the button shown (arrow) to modify the display language.  
The available languages will be shown in the drop-down menu.
2. Select the language, that will be used and displayed.



ENGINEERING TOMORROW

**Danfoss**

refresh ☒ Search

English

German

Owner	Login/Logout	Details
Danfoss	2015/05/18 18:48:52	
Danfoss	2015/01/14 16:14:27	

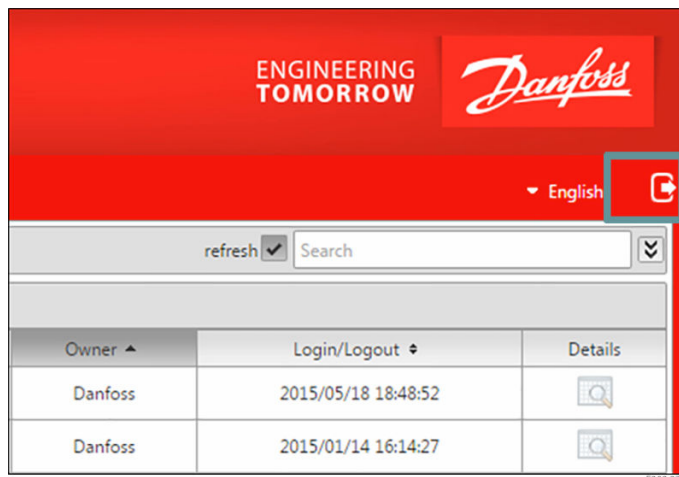
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## Logout

The logout symbol is shown on the right side of the web page. Always use this logout button to quit the portal.

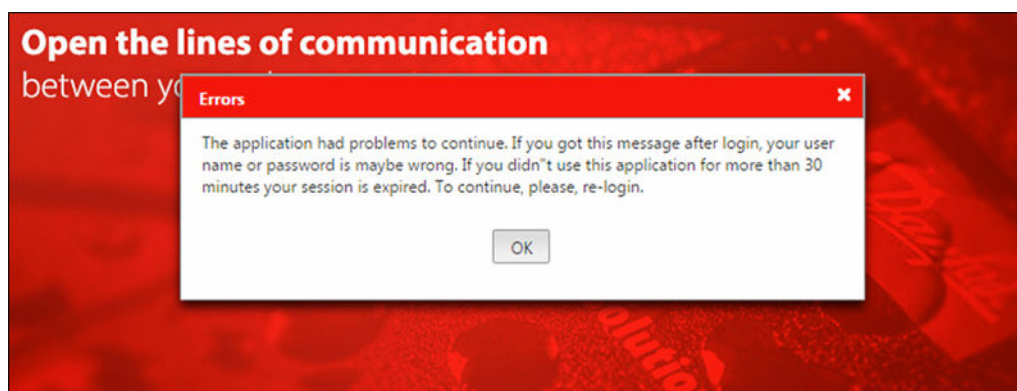
This function protects the security of your account.

## General



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To protect the security of your account, your session expires and you are automatically logged out if you are inactive for 30 minutes the following message will be shown in a pop up window when the user request a general functionality from the portal (it's necessary to login again):

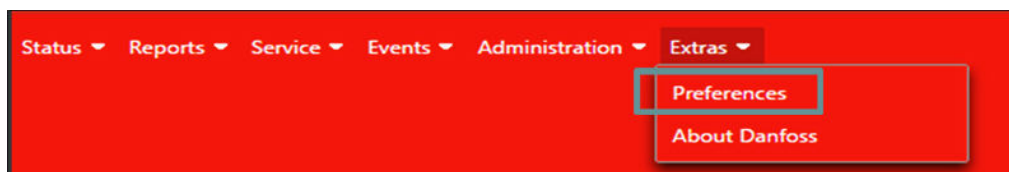


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## Preferences

The user can configure the preferred setting for his account. This makes it possible to configure the display to your local conditions.

1. To access **Preferences**, Click on: **Extras > Preferences**



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## General

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Designation	Explanation
Language	Select your preferred language
Time zone	Select your time zone
Conversion	Select the units you need for your vehicle data
Number Format	Select the setting for the number formats you need. Find out on your PC settings as follows: <b>System control &gt; Region and language &gt; Further Setting</b>
Hide control devices without data	Hide devices without data. For the standard DTS this application has no function
Hide unknown or invalid data	Hide unknown or invalid data. For the standard DTS this application has no function
Summarize Files	The machine data report shows the summary of the data
Change Password	You can change the password for your account
Tracking	This option allows you to configure the position tracking attributes

### 2. Click on

- **Save** to adopt the changes
- **Cancel** to reject the changes

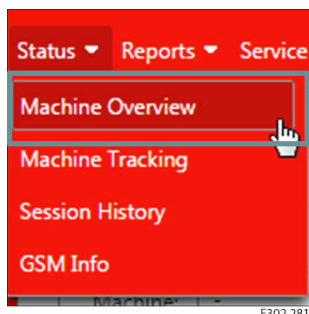
## Machine status

### Machine overview

After the login, the user will see a table with an overview of the devices allocated to him in the DTS portal.

For *Machines*, click on:

- **Status > Machine Overview**



The Machine overview section gives you an overview of the status and general information of your machines/vehicles.

Status	Model	Serial	Name	Owner	Login/Logout	Details
●●●	WS403	1438042	WS403 - H1AC - Demo - 352648061621801	Danfoss	2015/05/19 11:41:36	
●●●	WS	352648063889844	WS - 352648063889844	Danfoss	2015/05/19 11:20:02	
●●●	-	253004218 SN7 359769032426932	253004218 SN7 359769032426932	Danfoss	2015/05/19 10:35:18	
●●●	WS403	1443037 / 352648064049547	WS - 352648063889844	Danfoss	2015/05/19 10:15:57	

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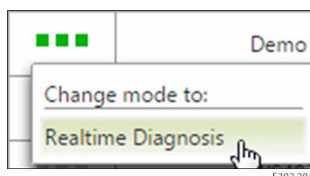
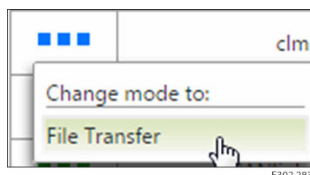
Designation	Explanation					
Status	<p>Status indicates the current DTS connection status of the machine:</p> <table> <tr> <td>Offline</td><td rowspan="4"> <p>F302 466.A</p> </td></tr> <tr> <td>Online logging/file transfer mode</td></tr> <tr> <td>Online realtime mode</td></tr> <tr> <td>Online realtime diagnostic session active</td></tr> </table>	Offline	<p>F302 466.A</p>	Online logging/file transfer mode	Online realtime mode	Online realtime diagnostic session active
Offline	<p>F302 466.A</p>					
Online logging/file transfer mode						
Online realtime mode						
Online realtime diagnostic session active						
Model	The model field can displays for instance details of the vehicle model. The administrator can customize these details (see <a href="#">Manage Machine</a> on page 71)					
Serial	The serial field can contain details of the device. The administrator can customize these details (see <a href="#">Manage Machine</a> on page 71) Example: SN / IMEI à 1451005 / 352648067099200					
Name	The name field can displays for instance details of the company name. The administrator can customize these details (see <a href="#">Manage Machine</a> on page 71)					
Owner	The Owner field can displays for instance details of the vehicle name. The administrator can customize these details (see <a href="#">Manage Machine</a> on page 71)					
Login/Logout	This field indicates the last time the device connected to the DTS server or disconnected from it					
Details	This field, when it is active, indicates that a DTS portal configuration is assigned to the machine in order to show details about logged data					

## Machine status

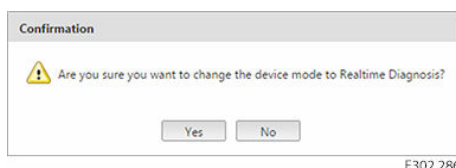
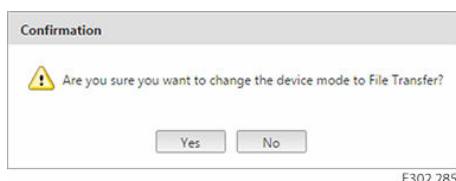
### Switch machine connection mode

In the machine overview, you have the option of switching the device mode on your machine between real time and data logging mode.

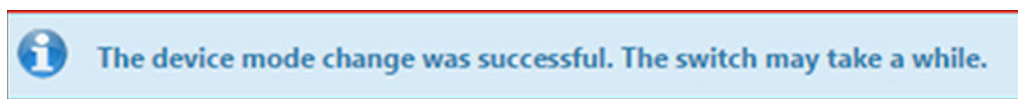
Click on the status squares of the relevant machine, a sub-window appear and opens:



If the module is in Real Time Mode (blue squares), you have the option of changing to **File Transfer** (Data Logging mode), vice versa if the module is in File Transfer mode (green squares), you have the option of changing to **Realtime Diagnosis** (Real Time Mode).



In both case you have to confirm to change the mode and the following message confirm that the request was successfully processed.



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### Search

To find the desired machine quickly you can use the **Search box** and type on the details of the machine you are looking at, click on **refresh box** to update the information showed on display:



### Advanced search

To find the machine more flexibly you can use the **Advanced Search**, just click on the **arrow symbol** next to the search field that opens another bar which enables an individual search for the required machine: the entries are automatically executed.

## Machine status

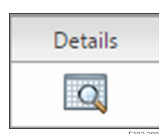
Machine status form with fields for Serial, Model, Name, Owner, Machine group, Only connected, and Only erroneous. The form is titled 'Machines' and includes a 'refresh' button and a search bar.

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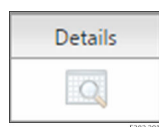
### Details

Use the spreadsheet symbol located in the details field of the desired machine to open an overview which lists the data logged by the device.

The symbol could be active or not active depending if the machine is assigned to a specific Machine Configuration available on DTS portal.



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The time field shows the time at which the device logged the data set.

The machine information must be available on the vehicle CAN bus Network. The device can be configured in order to logs your desired machine's CAN messages in files called with extension '.clf'. After a certain length of time or a logged data volume of 1 kB, the clf file is closed, then sent to DTS portal. There, the file is interpreted according to a rule determined by the Machine Configuration assigned to the vehicle on the DTS portal.

The derived values are then made available on the DTS portal. For more information on how to set up the machine configuration data on your DTS portal, please contact DTS Team, your reference EC SDM or download the document 'Data logging' from DPS website.

Machine status table with columns: Name, Details. The table lists machines: Telematics training unit 10-J, 253004219 SN2 359769031713305, Backhoe - 352648063886980, and WS503 Prototype 2. The details for WS503 Prototype 2 are shown in a separate table.

Signal	Value	Unit	Time
Engine Speed	8.013,000	RPM	05/20/15 3:27:58 PM
Accelerator Position	80,4	%	05/20/15 3:27:58 PM
Engine load	91	%	05/20/15 3:27:58 PM
Kickdown.Switch	Passive		05/20/15 3:27:58 PM
Digital Input	Off		05/20/15 3:28:21 PM

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To display the data of a different machine, click on **Machines** on the corresponding spreadsheet active icon.

The header of the right table indicate the name of the machine you are looking at. A various tabs could be available to show the various values of selected machine.

To return to the Machine overview visualization just click on the **Maximize machine overview symbol**.

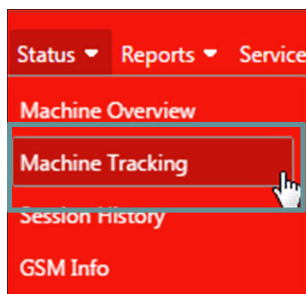
## Machine tracking

Through DTS portal you can know where the machines in your fleet are.

Machine tracking gives you an overview of the last positions sent by machine on DTS portal.

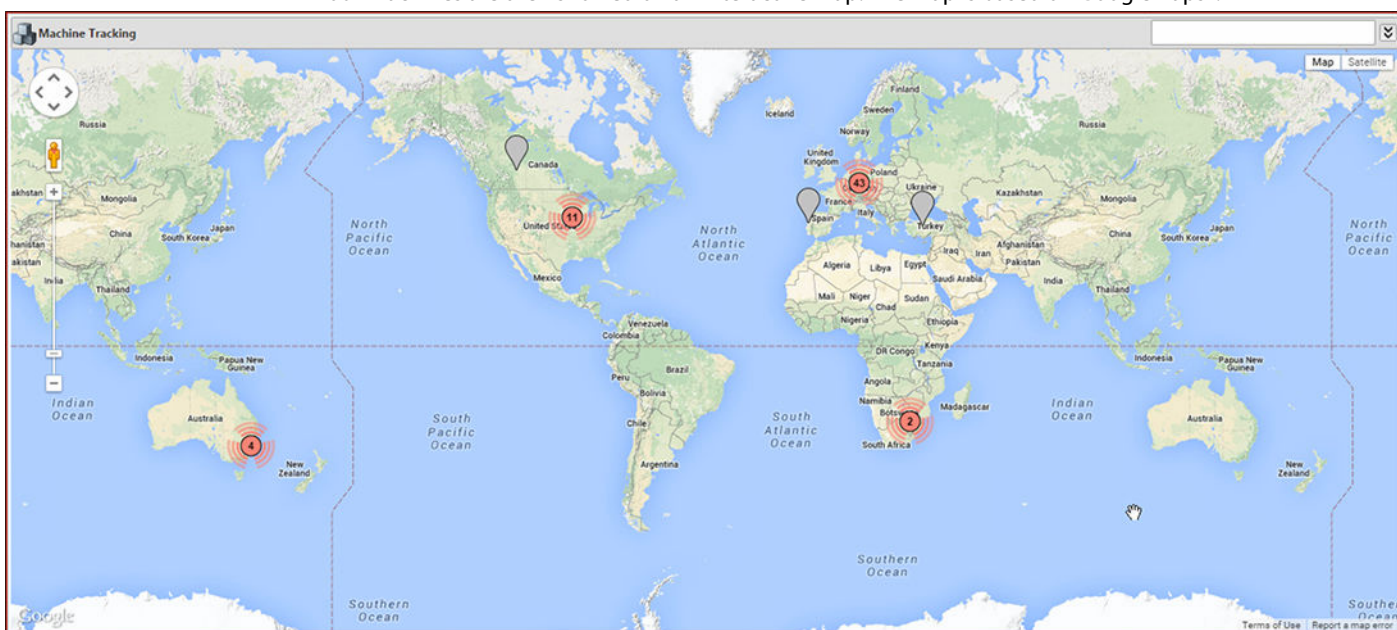
## Machine status

To **Machine Tracking** select: **Status** > **Machine Tracking**



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Your machines are then showed on an interactive map. The map is based on GoogleMaps®.



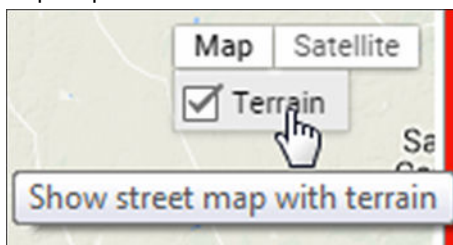
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To the left of the maps there is

- A zoom toolbar (you can also use the mouse): the closer you zoom into the map, the more detailed you can see the position of your machines.
- The GoogleStreetView® tools.
- The pan tool to move (up, down, left and right) around the map.

The map visualization could be customized based on the following selection:

- Map: Map visualization and to enable/disable the terrain details with the street map.



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- Satellite: Satellite visualization and to enable/disable the streets with names.

## Machine status



### Machine group

Depending by the zoom level set by the user, the machines located in the same geographical area are automatically showed in group of machines.

The group of machine icon it's:





The number inside the machine group icon shows you how many machines are there.

### Machine position

You can also see the position of an individual vehicle.

1. To do this; go to search and filter the machine you want to find or
2. click to a machine group or
3. zoom in and select the individual machine on the map.

The individual machine/device icon on the map is the following:

If the icon is green, the machine/device is online	
If the icon is gray, the machine/device is offline.	

### Display machine tracks

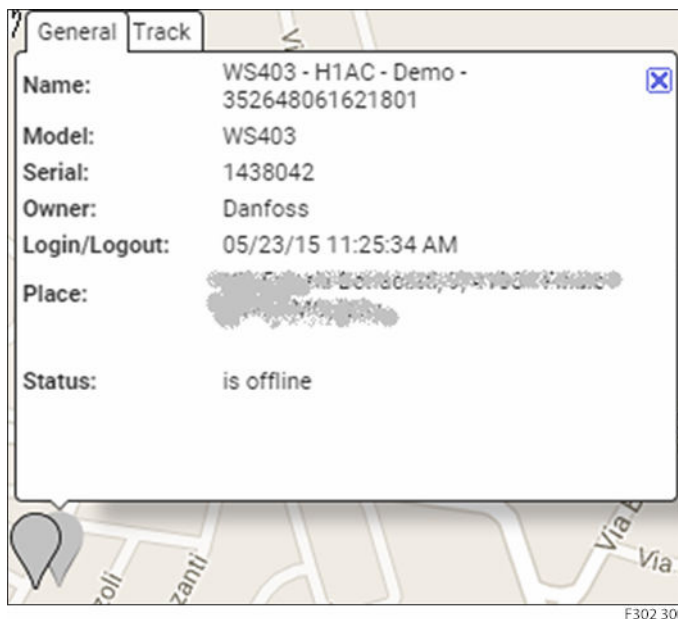
The machine tracking system can also display the route a vehicle as taken. Apart from the GPS data, the entire machine shown in the machine overview can also be showed along the route travelled.

[In the following example, the machine speed has been selected.](#)



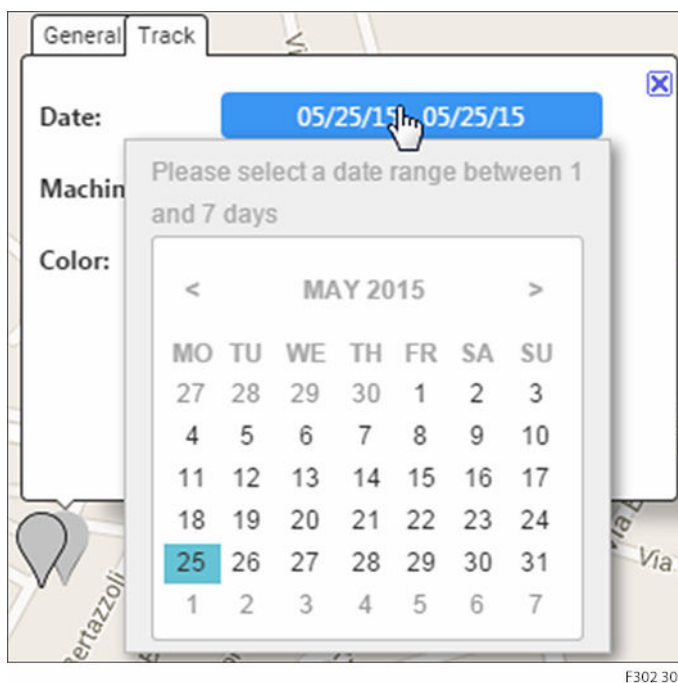
## Machine status

1. Select the machine on the map to open a new overview window.



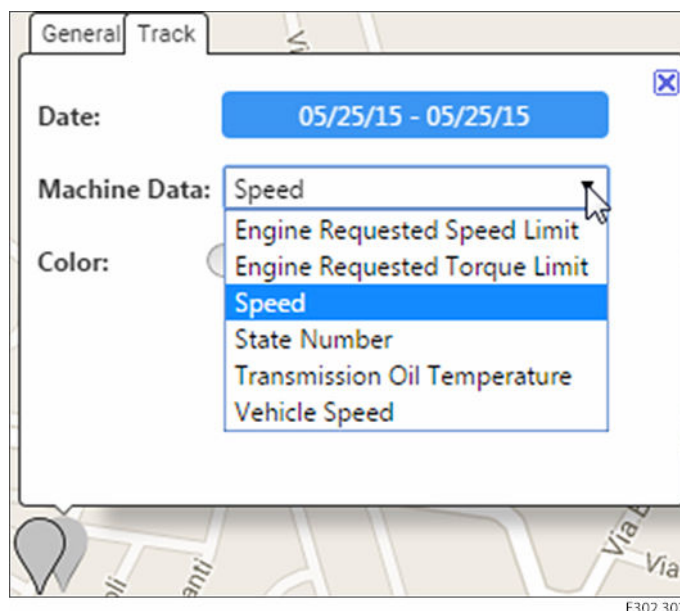
**General:** Provide for the selected machine the general information also available in the **Machine Overview** and in addition the last place information stored by the machine on DTS portal and the current status of the machine (is offline or is online).

**Track:** You can enter the time period (range between 1 and 7 days) you wish to see by selecting the corresponding dates:

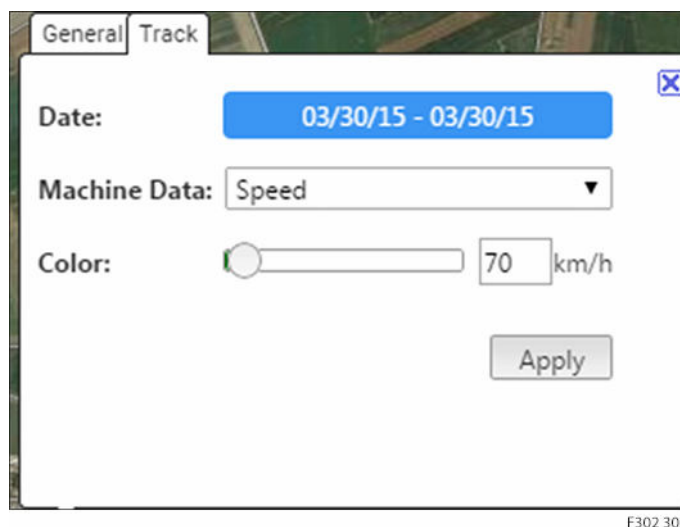


2. Use the **Machine Data** drop-down menu to select the required data. In this example, the speed is shown.

## Machine status



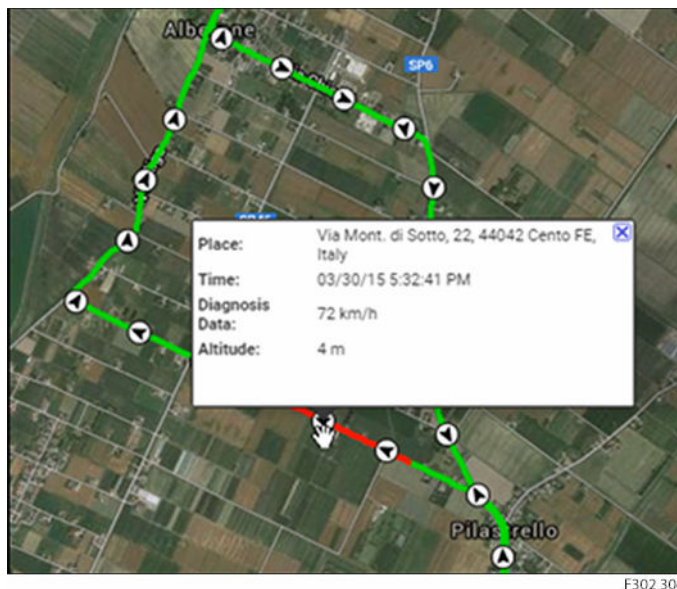
In the color field, you can set a limit value (70 km/h in the example). For instance, if the vehicle has the speed exceeded the limit value on part of the route shown, this section is marked in red on the map, otherwise is green.



3. Click the **Apply** push button.

The route travelled is shown on the interactive map with point that indicate also the direction of the machine:

## Machine status



If you hold the cursor over a point on the route, a **Waypoints** box displays

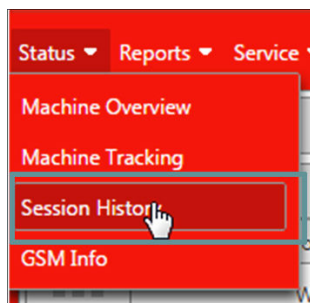
- Location detail
- Date and time
- Diagnosis Data (Speed data)
- Altitude

for each GPS dataset, depending on the machine configuration. Use the same procedure to see all the other machine data logged by the device on the route display. The historical data stored on DTS portal will be available for 3 month durations starting from the date when it has been stored on it.

## Session history

**Session History** show you the login and logout times of the individual machines.

1. To see **Session History** select: **Status** > **Session History**



## Machine status

2. Select the machine:

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3. Select the time period you want to be displayed by fill in the fields **from** and **to**:

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4. Select the type of connection you want to consider during the search session.

- All
- Correct
- Faulty

5. Then click on **Search** push button

(if you want to see all records, leave all the fields blank and just click on **Search** push button, this produce the following overview:

## Machine status



Result (found: 35)

Machine #	Device Id #	Session Id #	Succeed #	Login	Logout	
WS403 - H1AC - Demo - 352648061621801	352648061621801	12088909	✓	03/31/2015 - 00:46:27	03/31/2015 - 00:49:28	No details available
WS403 - H1AC - Demo - 352648061621801	352648061621801	12088884	✓	03/31/2015 - 00:39:26	03/31/2015 - 00:42:27	No details available
WS403 - H1AC - Demo - 352648061621801	352648061621801	12088829	✓	03/31/2015 - 00:25:26	03/31/2015 - 00:26:27	No details available
WS403 - H1AC - Demo - 352648061621801	352648061621801	12088809	✓	03/31/2015 - 00:18:27	03/31/2015 - 00:19:27	No details available
WS403 - H1AC - Demo - 352648061621801	352648061621801	12088776	✓	03/31/2015 - 00:11:31	03/31/2015 - 00:14:32	No details available
WS403 - H1AC - Demo - 352648061621801	352648061621801	12088631	✓	03/30/2015 - 23:33:15	03/31/2015 - 00:08:21	No details available
WS403 - H1AC - Demo - 352648061621801	352648061621801	12087881	✓	03/30/2015 - 19:40:32	03/30/2015 - 21:35:38	No details available
WS403 - H1AC - Demo - 352648061621801	352648061621801	12087859	✓	03/30/2015 - 19:35:54	03/30/2015 - 19:37:32	No details available
WS403 - H1AC - Demo - 352648061621801	352648061621801	12087857	✓	03/30/2015 - 19:34:59	03/30/2015 - 19:35:54	No details available
WS403 - H1AC - Demo - 352648061621801	352648061621801	12087838	✓	03/30/2015 - 19:38:40	03/30/2015 - 19:38:40	No details available

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This shows you when and how long the device was online.

This can help determine the cause of the fault: frequent connection failures indicate poor reception conditions (e.g. defective or badly positioned antennas, poor connectivity).

 F302 209	No fault found
 F302 310	Fault found

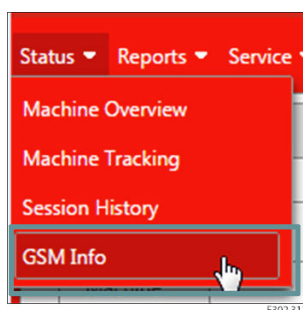
6. Click on **Cancel** if you want to back to **Machine Overview**.

## GSM info

*GSM Info* gives you a detailed overview of signal quality, position, SIM card used, and network operator of your device at the time of connection to the mobile network.

When the machine is off-line this section continue to show the latest information available when the machine was online. For GSM information select:

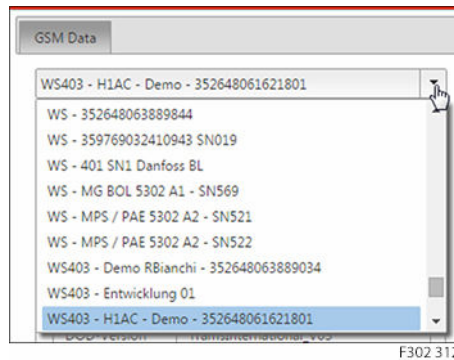
- **Status > GSM info**



F302 311

Select the machine from the list of machines available:

## Machine status



You will see this overview of the status of your device:

## Machine status

GSM Data

WS403 - H1AC - Demo - 352648061621801

General

Name	WS403 - H1AC - Demo - 352648061621801
Version	CANlink mobile
Hardware Version	Hw 4.0 02005301
Software Version	Fw 2.00 I UMTS 11.00
DOD-Version	
DOD-Accept time	2015/05/20 19:24:52
Telephone Number	

GSM Information

Operator	I TIM
SIM Card Number	
Status	
Signal Quality	

Mapping Information

Latitude	44.834826667
Longitude	11.285351333
Altitude	24.0
Street	
City	
State	Emilia-Romagna
Country	Italy
Last valid GPS data request	2015/05/23 13:19:37

F302 313

This data was logged at the time of connection to the GSM/UMTS mobile network.

General	Explanation
Name	Displays the name of the machine whose GSM information you are accessing.
Version	Shows the name of the GSM device.
Hardware Version	Shows the hardware version of the device.
Software Version	Shows the firmware version currently installed in the device.

## Machine status

General	Explanation
DOD version	Shows the DOD version currently installed in the device.
DOD Accept time	Shows the data and time when the current DOD was downloaded in the device.
Telephone Number	Telephone number of the SIM card used (if available).

GSM Information	Explanation
Operator	Indicates the operator used for the connection to GSM/UMTS network
SIM Card Number	Number of the SIM card used. You can also find this on the SIM card.
Status	Connection status information (currently not available).
Signal Quality	Shows the GSM/UMTS signal quality at the time of login to the DTS portal.

Mapping Information	Explanation
Mapping Information	Shows the last known position with date.
...	...



## Reports

Under **Reports** you can access or generate various reports and convert them in various forms to other formats. This means you can flexibly monitor the status of your machine at any time and also log this information permanently.

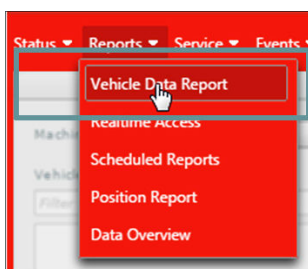
### Vehicle data report

DTS offers the option of having data logged from vehicles/machines to the DTS portal displayed in graphic form and subsequently formatted in different formats.

This gives you the means to compare machine data and increase efficiency and productivity.

This simplifies the delay report activity that normally is executed manually by the user of the machine every time the machine it's used.

For **Machine Data** report select: **Reports > Vehicle Data Report**



F302 314

F302 315

### Machine group

Optional: Select the vehicle group you wish to see:

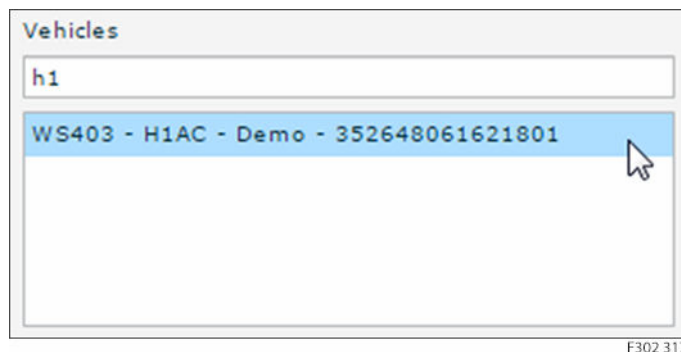
F302 316

### Vehicles

The **Vehicles** field lists all the vehicles you manage in your account or that are part of the selected Machine Group. You can use the filter box to speed up the search of it.

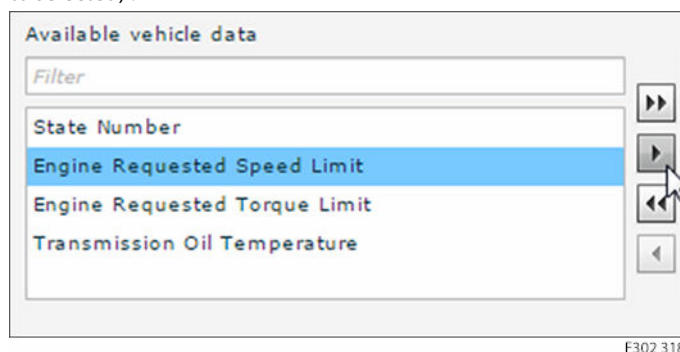
## Reports

Double-click on the corresponding vehicle in the list, to create a report for a particular vehicle.



### Available vehicle data

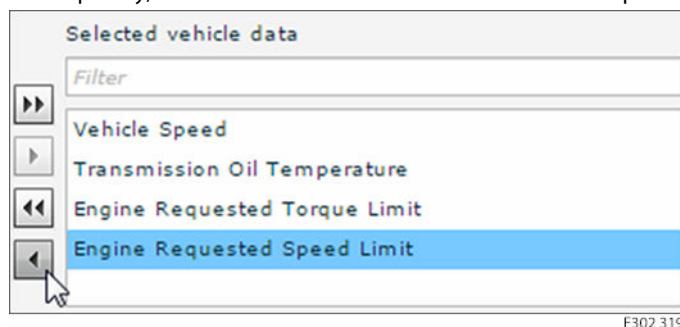
After you have selected a vehicle, this field shows all the data logged on this vehicle available on the DTS portal. Now you can select which data you want to evaluate, you can use the filter box to speed up the search of specific signal, to do this, either double-click on the corresponding signal, or single-click followed by arrow to the right (by using the mouse you can also drag and drop the signal from available to selected) :



### Selected vehicle data

The vehicle data you have selected is displayed in the **Selected vehicle data** list. You can select up to 5 datasets simultaneously. If required, you can also delete data from the list by using the arrow to the left (by using the mouse you can also drag n drop the signal from selected to available).

Subsequently, all the vehicle data in this list is shown in the report.



### Time period

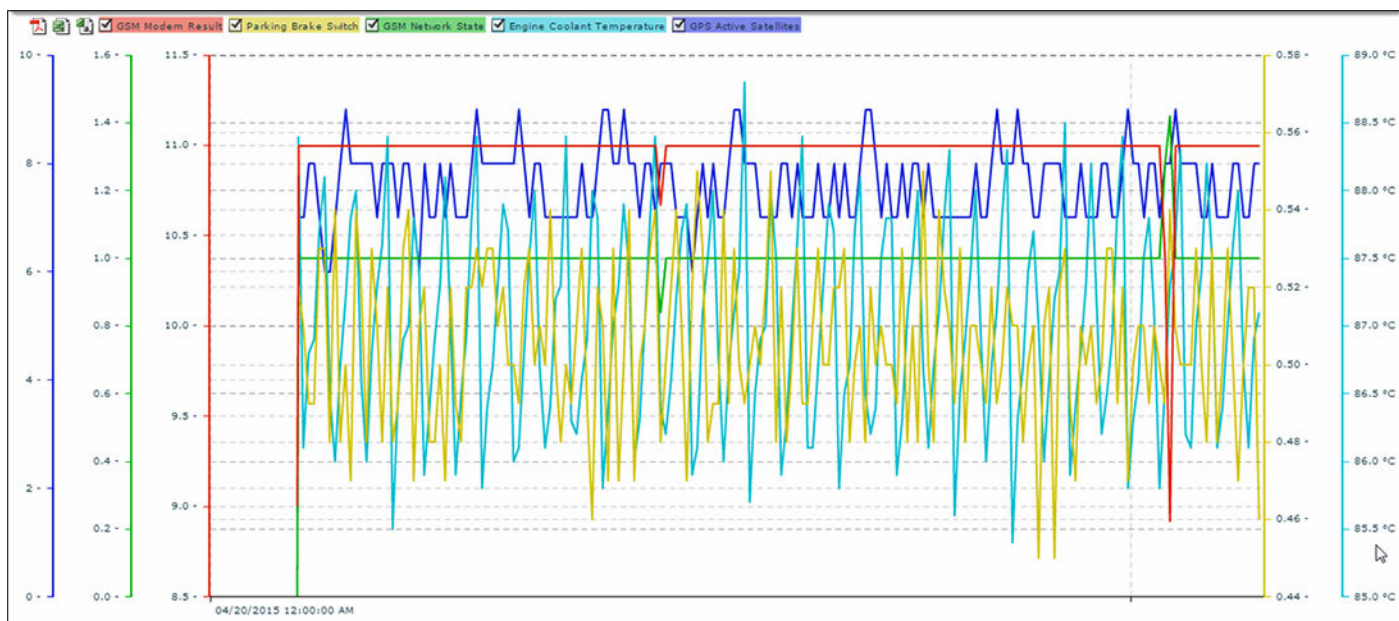
You can select a time period of up to one month, giving you the flexibility to choose the period the report relates to.

## Reports

1. Enter the date and time you require:

F302 320

2. Click on **Create report** push button to display the vehicle data selected graphically in an overview:



F302 321

3. Check or uncheck the boxes above the diagram to see individual values.

As default, all the data you selected are enabled.

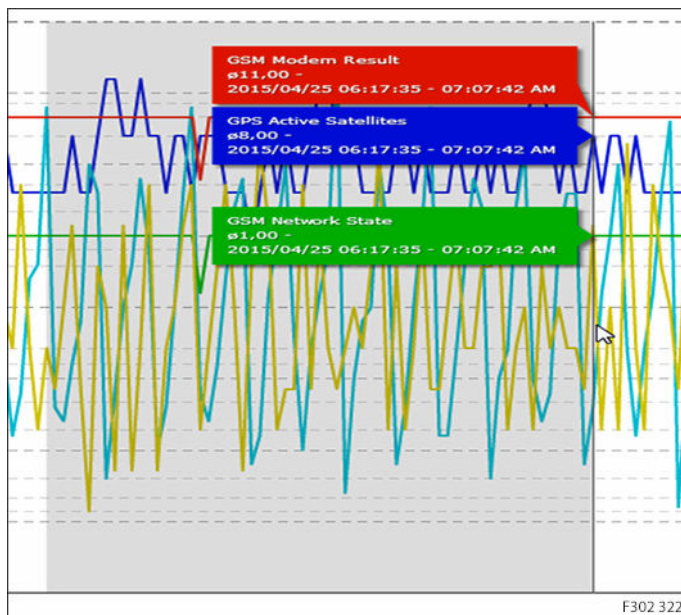
### Machine data report – Zoom

1. Click on the graphic to see an area in more detail.

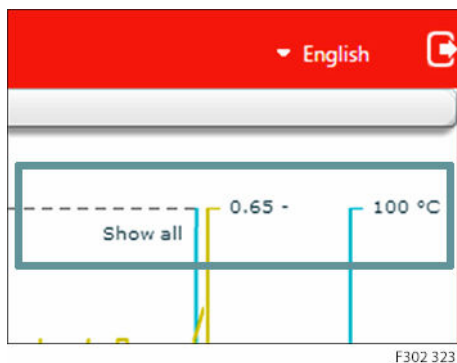
Hold the left mouse button down and drag over the required display area.

[You can use this function several times.](#)

## Reports

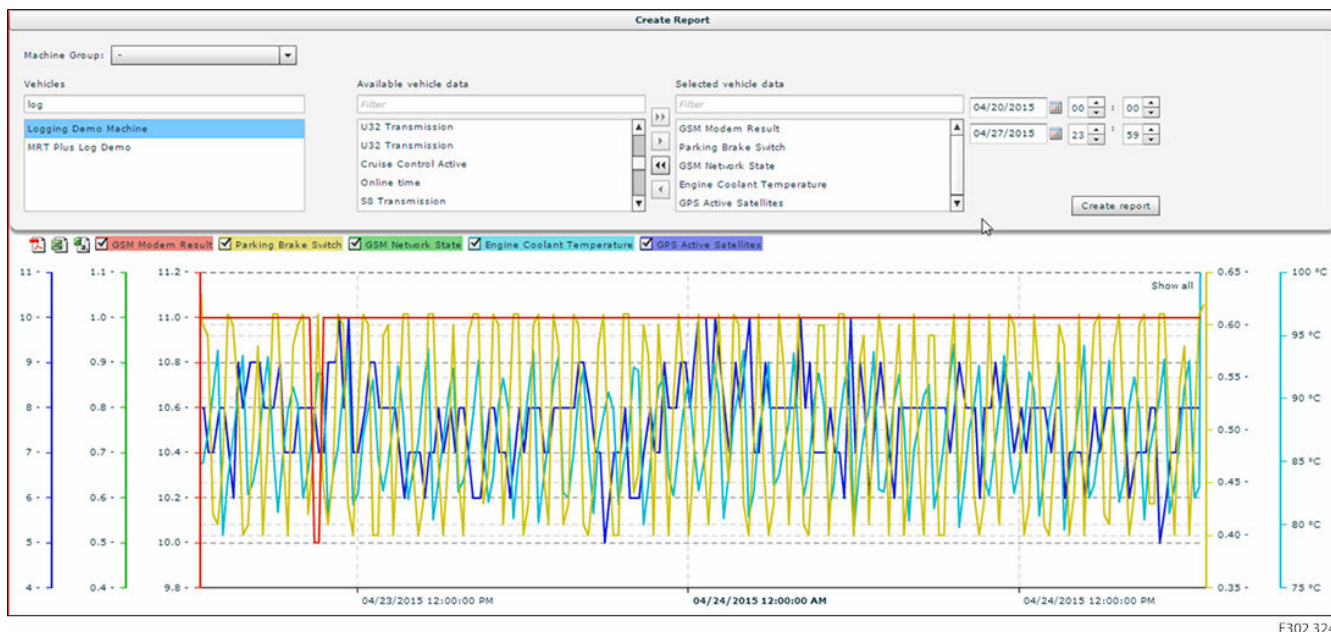


2. Click on **Show all** inside the graphical area to return to the normal view.



## Reports

3. Click on **Create Report** to return to the report settings area.






F302 324

### Generate reports

You can now generate the report you have created in a PDF, XLS, or CSV file and save it locally.

1. To generate a report, check the boxes to select the data you want to be included in the report.
2. Click on the relevant symbol to select the format of the generated report.

 F302 325	The report is provided as a PDF file. To open the file, you need a PDF reader. The report include the data in graphical and tabular form.
 F302 326	The report is provided as an XLS file. To open the file, you need either Microsoft Excel or Open Office Calc.
 F302 325	The report is provided as a CSV file.

Use the menu **Extras > Preferences > Number Format** settings to determine what list separators are shown in the CSV report:

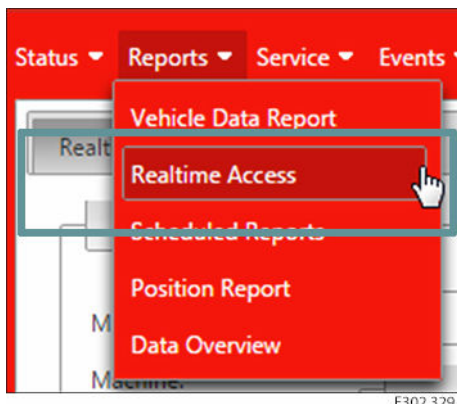
F302 328

## Reports

### Realtime access

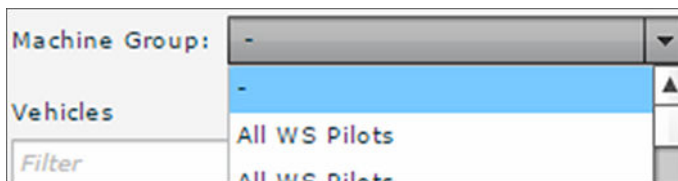
With the Realtime connection mode you can gain direct online access to the machine by using the Service Tool program. The major advantage of Realtime mode is that you do not have to be at the machine location and you do not need a cable connection.

1. For **Realtime Access** select: **Reports > Realtime Access**



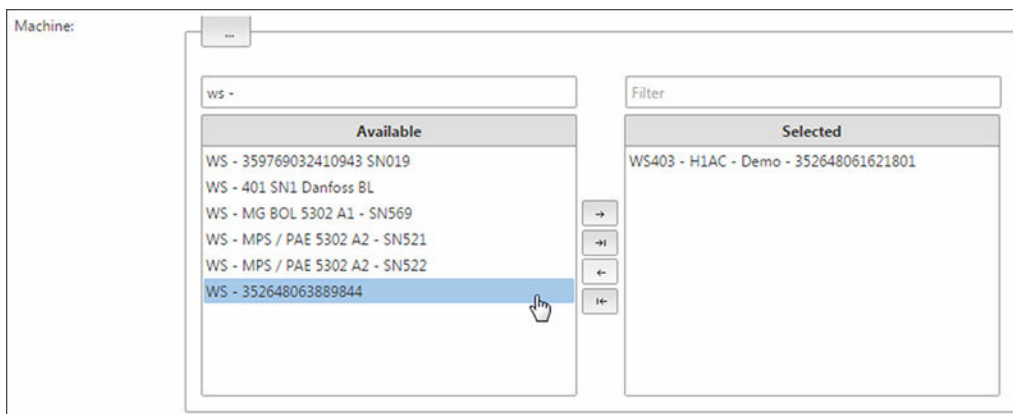
F302 329

2. Select the **Machine Group** you wish to see (optional):



F302 330

3. Select the machine or machines you want to generate an overview of.



F302 331

You can flexibly set the period of time to be shown. If you do not select any time period, all available data is displayed.

## Reports

Search Realtime Access

Machine Group: -

Machine: WS - 352648063889844

Available

- WS - 359769032410943 SN019
- WS - 401 SN1 Danfoss BL
- WS - MG BOL 5302 A1 - SN569
- WS - MPS / PAE 5302 A2 - SN521
- WS - MPS / PAE 5302 A2 - SN522
- WS - 352648063889844

From: 04/01/2015 00:00 To: 04/30/2015 00:00

F302 332

4. Check the box **Show single connections** to see a list of each individual connection.

From: 04/01/2015 00:00 To: 04/30/2015 00:00

Show single connections: ☒

F302 333

5. After you have made the settings you want, click on
- **Generate PDF** push button to generate the report or
  - **Cancel** push button to back to **Machine Overview** page.

Generate PDF Cancel

F302 334

6. Browse the location where you desire to save the **Realtime-Connection-Report.pdf** (you can rename the default name of the report by adding date, time and name of machine).

Save As

Computer > OSDisk (C:) > Temp

File name: Realtime-Connections-Report.pdf

Save as type: Adobe Acrobat Document

Save Cancel

F302 335

An example of report it's showed below:



## Reports

Realtime Sessions

General

Period of Time

From Tue 4/1/15 12:00 AM

To Wed 4/30/15 12:00 AM

Overview

Device Amount	User Amount	Connections	Duration (hh:mm)	Datatransfer (MB)
1	4	24	06:03	5,01

Sum per Device

Pos	Machine	Connections	Duration (hh:mm)	Amount of Data (KB)
1	WS403 - H1AC - Demo -	24	06:03	5.124,88

Single connections)

Pos	User	Maschine	Start	Duration (hh:mm)	Download (KB)	Upload (KB)
1		WS403 - H1AC - Demo -	4/1/15 9:55 AM	00:16	0,09	0,24
2		WS403 - H1AC - Demo -	4/1/15 11:24 AM	00:14	789,55	26,21
3		WS403 - H1AC - Demo -	4/1/15 5:32 PM	00:30	35,26	68,85
4		WS403 - H1AC - Demo -	4/1/15 6:04 PM	00:06	332,02	20,17
5		WS403 - H1AC - Demo -	4/3/15 5:10 PM	00:04	7,45	22,47
6		WS403 - H1AC - Demo -	4/7/15 9:38 AM	00:16	0,09	0,24
7		WS403 - H1AC - Demo -	4/7/15 12:05 PM	00:04	0,09	0,26
8		WS403 - H1AC - Demo -	4/7/15 12:11 PM	00:16	0,09	0,26
9		WS403 - H1AC - Demo -	4/8/15 9:06 AM	00:08	0,09	0,26
10		WS403 - H1AC - Demo -	4/8/15 9:00 AM	00:17	0,09	0,26
11		WS403 - H1AC - Demo -	4/8/15 10:28 AM	00:02	1,82	5,11
12		WS403 - H1AC - Demo -	4/8/15 10:32 AM	00:50	226,34	468,04
13		WS403 - H1AC - Demo -	4/8/15 1:22 PM	00:32	193,16	158,79
14		WS403 - H1AC - Demo -	4/8/15 3:59 PM	00:01	1,65	5,23

F302 336

The amount of data can help the user to monitor the GSM/UMTS data consumption during the real time connection, but the values showed in the report not match the volume of GSM/UMTS provider data traffic.

Header	Designation	Explanation
General	Period of Time	The time period of the realtime connections reported.
Overview	Device Amount	Indicates how many devices are shown in the connection record.
	User Amount	Indicates how many users have created a connection to the device.
	Connections	Indicates the number of connections in the defined period of time.
	Duration (hh:mm)	Indicates the total duration of connections in this period of time.
	Data transfer (MB)	Indicates the total data amount of the connections in this period of time.
Sum per Device	Vehicle	Indicates the name of the vehicle accessed.
	Connections	Indicates the number of connections to a vehicle.
	Duration	Indicates the duration of connections to a vehicle.
	Amount of Data (KB)	Indicates the amount of data of connections to a vehicle.



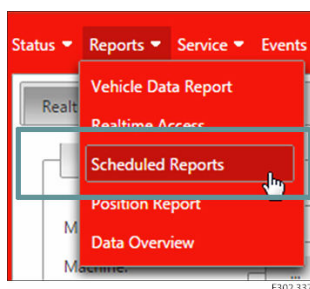
## Reports

Header	Designation	Explanation
Single connections	User	Indicates the name of the user accessing the device.
	Machine	Indicates the name of the vehicle.
	Start	Indicates the time of the individual connection.
	Duration	Indicates the duration of the individual connection.
	Download (KB)	Indicates the amount of data sent to the device. This can deviate from the value given by the telecommunications provider!
	Upload (KB)	Indicates the amount of data received by the device. This can deviate from the value given by the telecommunications provider!

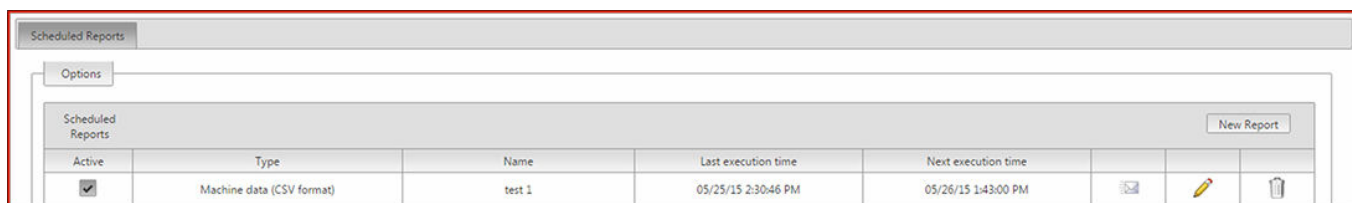
## Scheduled reports

The **Scheduled Reports** function enables you to have your machine's current data transferred to you by email at a certain point in time.

- For **Scheduled Reports** select: **Reports > Scheduled Reports**



- To create a **Scheduled Reports**, press **New Report** push button and follow the setting process step by step:

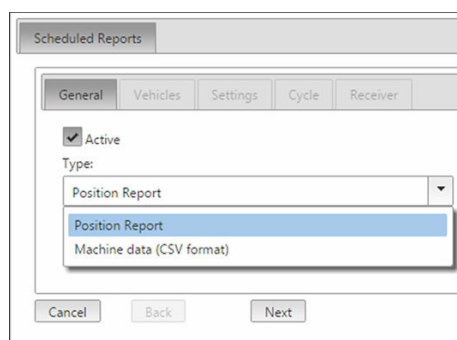


F302 338

### General

In the **Type** field, use the drop-down menu to choose between:

- Position Report
- Machine data (CSV format).



F302 339

## Reports

The **Name\*** field is a mandatory field. It is quoted in the subject line of the email in which you receive the information about your machine.

General Vehicles Settings Cycle Receiver

☒ Active

Type: Position Report

Name\*:

Cancel Back Next

F302 340

The **Active** box, if checked, indicate that the Scheduled report will be active at the end of the creation process.

Continue click on **Next** push button; click on **Cancel** push button to exit the Scheduled Report wizard process.

## Vehicles

Under *Vehicles*, you will find a list of the available machines.

Select the Machine Groups you wish to see (optional):

Machine Groups -

Machines All WS Pilots

F302 341

Double-click on a vehicle to transfer it to the **Selected** list. You can select several vehicles. You can use the filter box to speed up the machine selection:

Machines

h1

Filter

Available

WS403 - H1AC - Demo - 352648061621801

Selected

Cancel Back Next

F302 342

Continue click on **Next** push button; click on **Cancel** push button to exit the Scheduled Report wizard process; click on **Back** push button to back to General section settings.

## Settings

The **Settings** tab is not shown in the **Position Report** type. Select **Machine Data (CSV Format)** to see the settings.

## Reports

Scheduled Reports

General Vehicles **Settings** Cycle Receiver

Report period:  
last 24 hours

Cancel Back Next

F302 343

Select the repetition period in between the following settings:

General Vehicles **Settings** Cycle Receiver

Report period:  
last 24 hours

last 24 hours  
last 7 days  
last 30 days  
previous day  
previous week  
previous month

F302 344

- Last 24 hours (Selects the data from the last 24 hours from the time of generation of the report).
- Last 7 days (Selects the data from the last 7 days from the time of generation of the report).
- Last 30 days (Selects the data from the last 30 days from the time of generation of the report).
- Previous day (Selects the data from the previous day (00:00 hrs. – 23:59 hrs.)).
- Previous week (Selects the data from the previous week (for instance Monday - Sunday)).
- Previous month (Selects the data from the previous month (for instance 01 January – 31 January)).

Continue click on **Next** push button; click on **Cancel** push button to exit the Scheduled Report wizard process; click on **Back** push button to back to Vehicle section settings.

### Cycle

The *Cycle* function gives you the option of setting the time for sending the email. You have a choice between:

- Daily (you can decide on which days you want to be informed by checking the relevant days).
- Weekly (you receive a report weekly. You can freely decide on which day you want to receive the report).
- Monthly (you receive a scheduled report by email on the first of each month).

## Reports

General Vehicles Settings **Cycle** Receiver

Select date of report generation:

daily

daily

weekly

monthly

F302 345

You can decide on which days you want to be informed by checking the relevant day:

General Vehicles Settings **Cycle** Receiver

Select date of report generation:

daily

☒ Mo ☒ Tu ☒ We ☒ Th ☒ Fr ☐ Sa ☐ Su

Initial date of execution:

05/25/15 6:30:38 PM

Cancel Back Next

F302 346

You can select the initial date of execution of the Scheduled Report. Continue click on **Next** push button; click on **Cancel** push button to exit the Scheduled Report wizard process; click on **Back** push button to back to Vehicles section settings.

### Receiver

The **Receiver** function gives you the option of having the report automatically sent to one or several receivers. You can create several receivers.

Scheduled Reports

General Vehicles Settings Cycle **Receiver**

Name  E-Mail  Add

Name	E-Mail
No records found.	

Cancel Back Save

F302 347

Write the name of the receiver and his e-mail address, then click on **Add** push button to add the receiver information in the list.

## Reports

F302 348

If you press **Add** with empty field you will see the warning message:

F302 349

If the e-mail introduced it is not a valid e-mail address the following warning message will appear:

F302 350

Click on **Save** to adopt the data; click on **Cancel** push button to exit the Scheduled Report wizard process; click on **Back** push button to back to Cycle section settings.

If the save action is successfully a fdbk message will be showed.

F302 351

Next you will receive an overview of the already generated reports.

If Active box is checked this indicated that the associated Scheduled report is active.

Options							
Scheduled Reports							
Active	Type	Name	Last execution time	Next execution time	New Report		
<input checked="" type="checkbox"/>	Machine data (CSV format)	HIAC Demo Machine Report		05/29/15 10:07:00 PM			

F302 352

	Click on the <b>Execute</b> symbol and the report will immediately be received by the specified email address.
	Click on the <b>Edit</b> symbol to make changes to your report.
	Click on the <b>Delete</b> symbol to delete the report in the corresponding line.

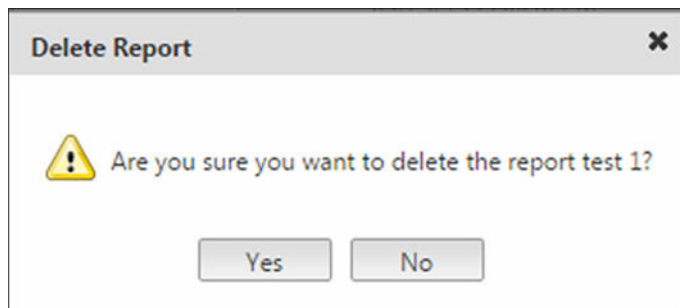
F302 353

F302 354

F302 355

## Reports

If you desire to delete a specific Scheduled report the following pop up window appear in order to confirm the action:



F302 356

### Machine data (CSV format)

The procedure for generating a machine data report in CSV format is exactly the same as that for a position report. The only difference is that the **Settings** tab is now additionally visible. There you can set the report period for which you want to receive the machine data depiction.

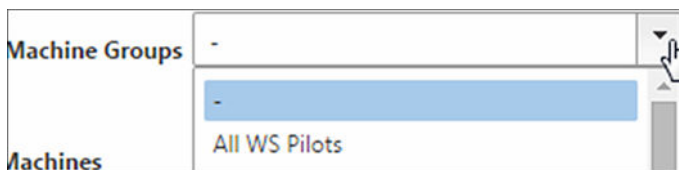
After you have saved the machine data report, you will receive an email with a zip file at the specified times.

It contains the CSV file. This lists all the machine data for the specified period with their physical values.

## Position report

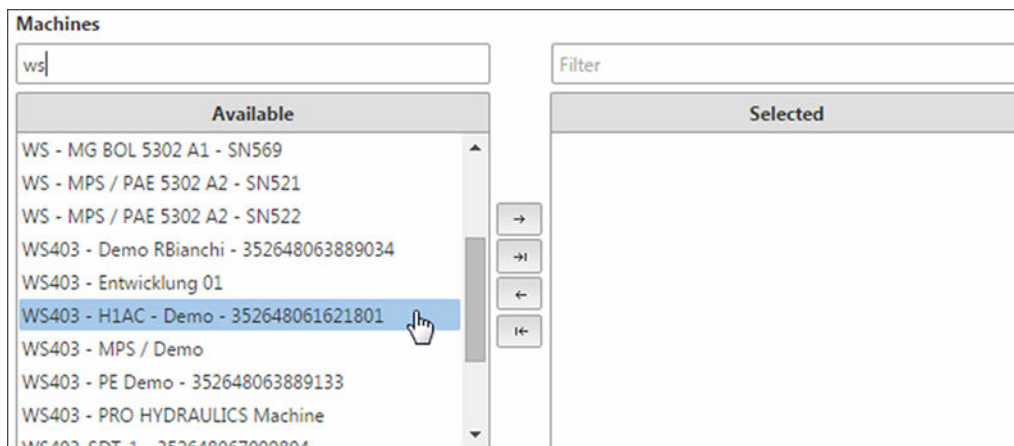
Using the **Position Report**, you can generate a report that list the last-known GPS positions of your machine. That means you are always up to date and can find out the location of your vehicles always and at any time.

1. For **Position Reports** select: **Reports > Position Reports**
2. Select the **Machine Groups** you wish to see (optional):



F302 357

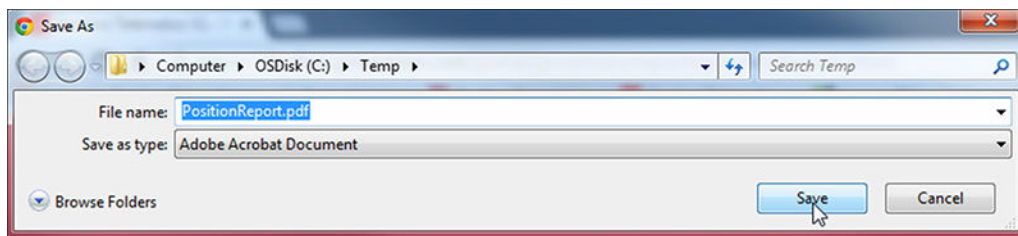
3. Select the vehicle whose position you want to know.



F302 358

## Reports

- Then click on **Generate Report** push button to generate a report in PDF format.

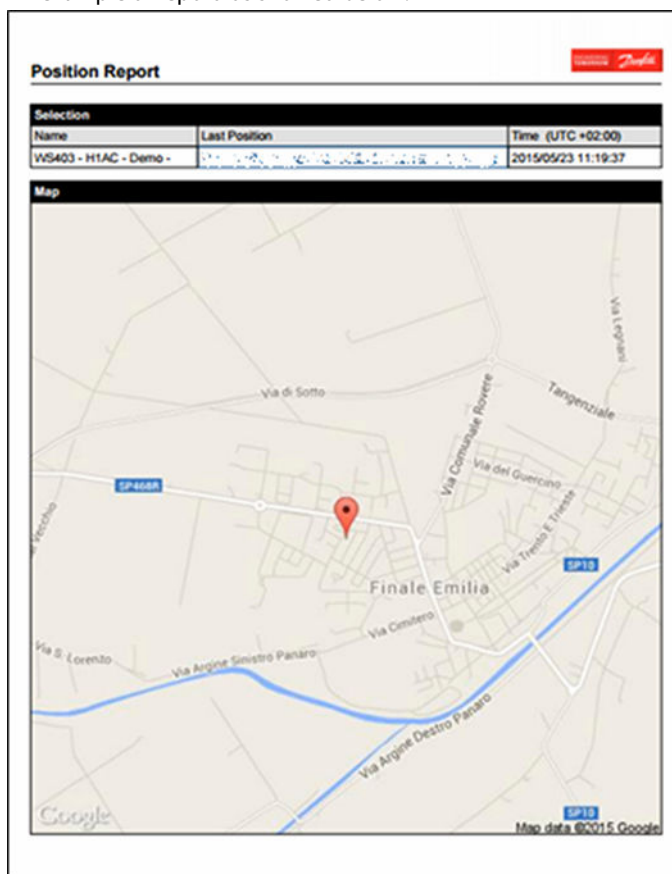


F302 359

- Browse the location where you desire to save the **PositionReport.pdf**

(you can rename the default name of the report by adding date, time and name of machine).

An example of report it's showed below:



F302 360

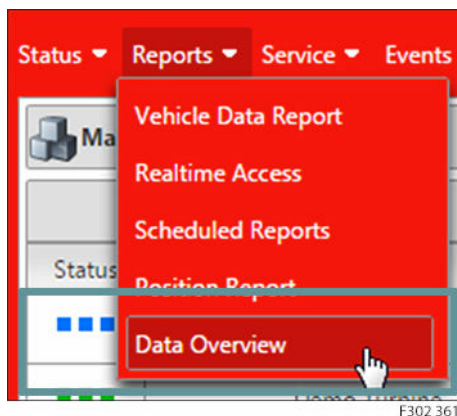
## Data overview

The 'Data Overview' gives you the option of displaying several vehicles or machines in a table, so you can see and compare them at a glance. You can freely decide which data you want to display in a table.

You can also export this overview in a different format (XLS, CSV).

## Reports

1. For **Data Overview** select: **Reports > Data Overview**



F302 361

The screenshot shows the 'Data Overview' page. At the top, there's a 'Data Overview' tab. Below it, a message states: 'There is no saved Data Overview. You can click on 'Create Data Overview without profile'. After you create a Data Overview you can save it as a profile.' A button labeled 'Create Data Overview without profile' is visible in the top right corner.

F302 362

2. To create a new table, click on **Create Data Overview without profile** push button, this opens the following overview:

The screenshot shows the 'Data Overview' page with a table of machines. The table has a 'Label' column and a search bar. The table contains 11 rows of machine data. Below the table, there are 'Cancel' and 'Next' buttons.

Label
253004218 SN11 359769032408400
253004218 SN12 359769032412600
253004218 SN13 359769032412519
253004218 SN14 359769032408483
253004218 SN5 359769032408491
253004218 SN6 359769032408368
253004218 SN7 359769032416932
253004219 SN1 359769031713685
253004219 SN10 359769031710152
253004219 SN11 359769031714352

F302 363

3. Create a data overview using the following steps.
  - a) Check the box adjacent to the required machine
  - b) Continue click on **Next** push button; click on **Cancel** push button to exit the Data Overview wizard process.



## Reports

c) Select the vehicle data you want to be displayed and compared.

Data Overview

Select the data to display

☐ Filter **All** Selected: 3 Search

	Label
<input type="checkbox"/>	Engine Requested Speed Limit
<input type="checkbox"/>	Engine Requested Torque Limit
<input checked="" type="checkbox"/>	Speed
<input type="checkbox"/>	State Number
<input checked="" type="checkbox"/>	Transmission Oil Temperature
<input checked="" type="checkbox"/>	Vehicle Speed

1 < < > >

Cancel Back Next

F302 364

d) Continue click on **Next** push button; click on **Cancel** push button to exit the Data Overview wizard process.

Data Overview

Profile name Save profile

Machine	Serial	Model	Owner	Speed (km/h)	Transmission Oil Temperature (°C)	Vehicle Speed (km/h)
WS - MG BOL 5302 A1 - SN569	253004037 SN569 359769032414382	MHL335E	Kiesel			
WS403 - H1AC - Demo - 352648061621801	1438042	WS403	Danfoss		36,00	0,00

Cancel Back

F302 365

You will then see the overview in tabular form containing the selected vehicle data.

Move your cursor over a dataset to see a timestamp showing the time of the recording.

### Save and recall profile

To save the profile,

1. Enter a profile name (for example H1AC\_Test)
2. Click on **Save profile**.

XLS CSV H1AC\_Test

F302 366

Next time you use the **Data Overview** function, you will see this profile and can access the logged vehicle/machine data directly by clicking on **Execute**.

Data Overview



Create Data Overview without profile

Name		
H1AC_Test		

F302 367

It's possible to transfer the data overview in a different format:

## Reports

 F302.326	Generates the data overview as an XLS file
 F302.325	Generates the data overview as a CSV file

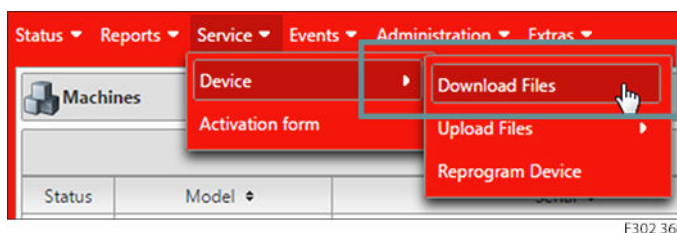
## Service

## Device

### Download Files

You can use the **Download Files** function to display the files transferred (for example CLF file) from your device to the DTS portal on your user interface.

1. For **Download Files** select: **Service > Device > Download Files**



F302 368

2. You can determine when a file is to be transferred in the configuration of your device.

F302 369

3. You can use the **Search** function to perform a detailed search for a specific file.
4. Select a period of time to choose which data you want to view.  
Leave fields blank, if you want to see all records.

Result (found: 16,537)							
Machine	Filename	File Ext.	Size	Status	Transferred	Changed	
WS403 - H1AC - Demo - 352648061621801	00016058	clf	58 b	✓	2015/05/20 17:24:19	2015/05/20 17:24:19	
WS403 - H1AC - Demo - 352648061621801	00016057	clf	121 b	✓	2015/05/20 16:05:02	2015/05/20 16:05:02	
WS403 - H1AC - Demo - 352648061621801	00016056	clf	121 b	✓	2015/05/20 15:44:49	2015/05/20 15:44:49	
WS403 - H1AC - Demo - 352648061621801	00015960	clf	1 kb	✓	2015/05/07 23:48:02	2015/05/07 23:48:02	
WS403 - H1AC - Demo - 352648061621801	00015959	clf	1 kb	✓	2015/05/07 23:47:48	2015/05/07 23:47:48	

F302 370









F302 371

General	Explanation
Machine	Name of the machine which sent the files to the DTS portal.
File name	File name without extension.
File extension	Indicates the file format.
Size	Indicates the file size.

## Service

General	Explanation
Status	Indicates whether the file was successfully transferred or the transfer was aborted.
Transferred	Indicates the time of the transfer.
Changed	Indicates when the file was last changed.

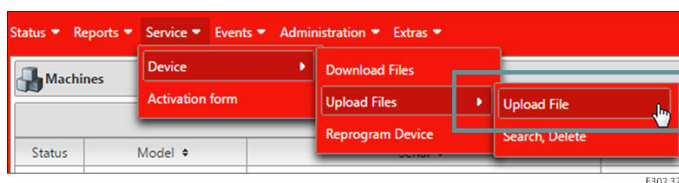
  

 F302 209	File Successful transferred
 F302 310	File transfer aborted
 Download F302 372	Use the diskette symbol 'Download' to download the corresponding file and save it locally to your PC. Subsequently, the file is locally available.
 Delete F302 373	Use the recycle bin symbol 'Delete' to delete the corresponding file. The file is then deleted from the server and is no longer available.
 Display F302 374	Use the document symbol 'Display' to see the file contents. This symbol opens a new window in your browser with the contents. However, the symbol only appears when the file extension is ".clf".
 Download all F302 375	Use the diskette symbol 'Download all' to download all files found (max. 1,200 files) at once. The files are collected in a zip file and saved locally to your PC.
 Convert CLF to CSV F302 376	Use the CSV symbol 'Convert CLF to CSV' to download all your data (max. 400 files) in your overview, convert it to csv format and save it locally to your PC. This function is only available when machine data is displayed on the portal. Delete all
 Delete F302 373	Use the recycle bin symbol 'Delete all' to delete all the data in the overview from the server. This data is then no longer available.

## Upload file

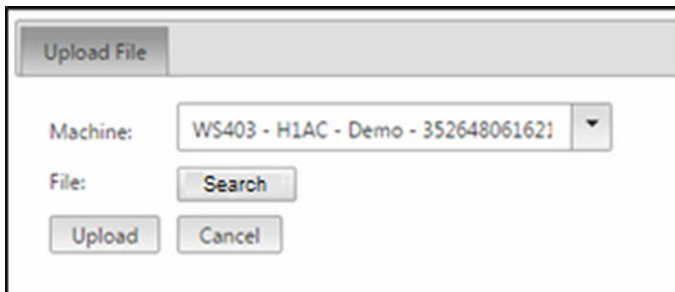
Using the **Upload File** function, you can send any file on your PC to a certain machine at any time. This file will then be made available by the machine device via CANopen.

1. For **Upload File** select: **Service** > **Device** > **Upload Files** > **Upload File**



## Service

2. In the machine's drop-down menu, you can choose which vehicle will receive the file you want to send.



F302 378

3. Then, select the file by clicking on **Search**.
4. After you have selected the file, you can upload it to the DTS server using **Upload**.  
The file is then sent to the device. If the device is currently unable to receive files, the file is stored temporarily until the device collects it.
5. Click on **Cancel** to back to **Machine Overview**.

### Name of the files

To be capable of uploading, the file name must meet the following criteria:

- The file names have to be 8 characters long.
- The extension has to consist of 3 characters.
- Valid characters: 'A' ... 'Z', 'a' ... 'z', '0' ... '9'

Files with invalid names will be rejected by the device. The files must be deleted from the DTS portal, otherwise the file transfer is blocked for both directions (upload and download).

### **Warning**

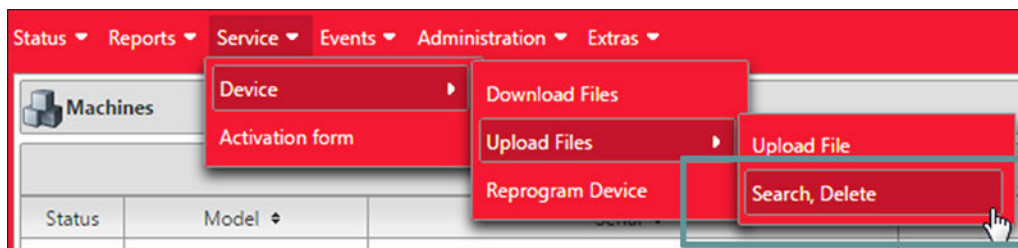
If a file is rejected by the devices, there is no indication on the device side. Hence invalid: file names have to be avoided!

Solution if the file transfer is stuck: Delete the file(s) with the erroneous file name(s) in the DTS portal!

### Search, Delete

The **Search, Delete** function provides an overview of the files that have been sent to the device. You can use this function to see when a file was transmitted.

1. For **Search, Delete** select: **Service > Device > Upload Files > Search, Delete**



## Service

- In the Search menu, you can select either a particular file or a particular time period.

F302 380

- Click on **Search** push button to display the result based on the criteria you selected;
- Click on **Cancel** push button to back to machine Overview.

Result (found: 41)							
Machine	Filename	File Ext.	Size	Status	Transferred	Changed	
WS403 - H1AC - Demo - 352648061621801	DsblLogs	obw	116 b	✓	2015/05/05 09:07:38	2015/05/05 09:07:38	
WS403 - H1AC - Demo - 352648061621801	EnblLogs	obw	107 b	✓	2015/05/05 08:06:45	2015/05/05 08:06:45	
WS403 - H1AC - Demo - 352648061621801	DsblLogs	obw	116 b	✓	2015/05/04 19:29:10	2015/05/04 19:29:10	
WS403 - H1AC - Demo - 352648061621801	EnblLogs	obw	107 b	✓	2015/05/04 19:25:59	2015/05/04 19:25:59	

F302 381

You then have the option of deleting individual or all files from the DTS portal.

F302 209	File was Successful transferred to the device
Download F302 372	Use the diskette symbol 'Download' to download the corresponding file and save it locally to your PC. Subsequently, the file is locally available.
Delete F302 373	Use the recycle bin symbol 'Delete' to delete the corresponding file. The file is then deleted from the server and is no longer available.
F302 310	File has not yet been transfer
Download all F302 375	Use the diskette symbol 'Download all' to download all files found (max. 1,200 files) at once. The files are collected in a zip file and saved locally to your PC.
Delete F302 373	Use the recycle bin symbol 'Delete all' to delete all the data in the overview from the server. This data is then no longer available.

## Service

### Special files

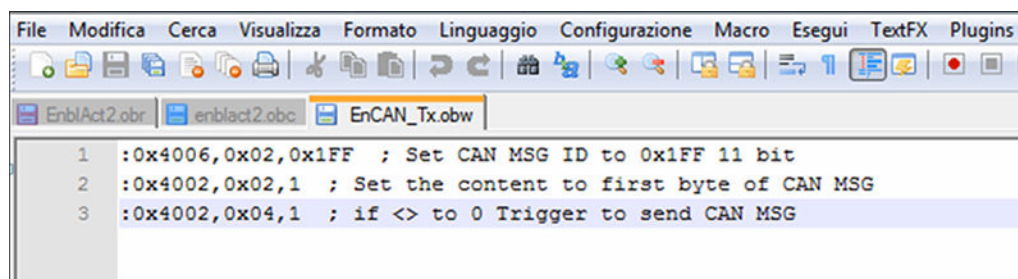
It is possible to interact with the WS403 via special files sent through the DTS portal to the telematics units. Below a description of the currently supported function special files.

#### Write object dictionary entry special file [.obw]

File contents:

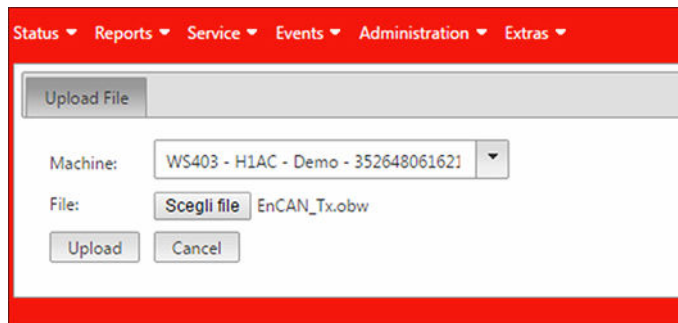
- Line starts with colon ':'
- Object dictionary index (e.g. 0x5353)
- Comma ','
- Object dictionary sub-index (e.g. 0x00)
- Comma ','
- Value to be written.
- All numeric values (signed-/unsigned-integer 8...32 bit, float 32 bit) can be written using this technique. Format for floating point numbers: "123.45". One can use hexadecimal or decimal notation.
- Semicolon ';' at the end of the line
- Comment
- Line end <CR><LF>
- Several lines can be combined in one file. Lines can be commented using a semicolon ';' at the beginning.

#### Example of [.obw]



F302 382

1. To upload the file on the selected device go to: **Service > Device > Upload Files > Upload Files**
2. Select the Machine.
3. Browse and select the .obw files.

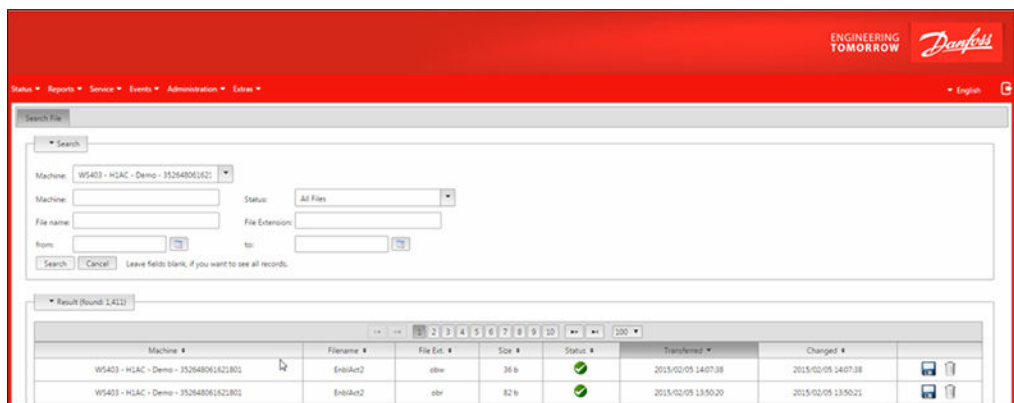


F302 383

4. Upload the files on the selected machine.
5. To verify if the files is correctly Uploaded on the selected device go to: **Service > Device > Upload Files > Search, Delete**

## Service

- Check in the list if the files selected have a Status with the green icon.



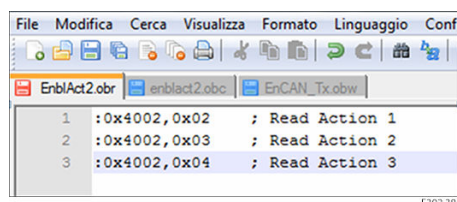
F302 384

### Read object dictionary entry through special file [.obr]

File contents:

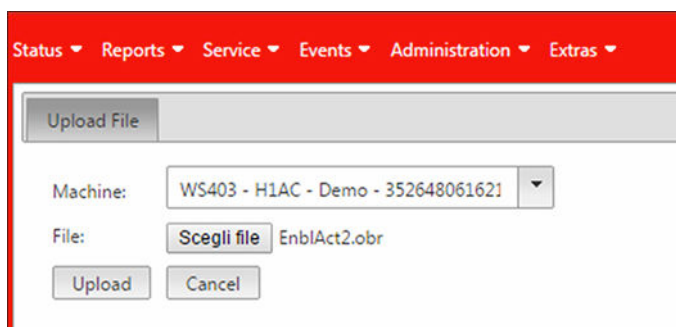
- Line starts with colon ':'
- Object dictionary index (e.g. 0x3333)
- Comma ','
- Object dictionary sub-index (e.g. 0x38)
- Semicolon ';'.
- Comment
- Line end <CR><LF>
- Several lines can be combined in one file. Lines can be commented using a semicolon ';' at the beginning.

### Example of [.obr]



F302 385

- To upload the file on the selected device go to: **Service > Device > Upload Files > Upload Files**
- Select the Machine.
- Browse and select the .obr files.



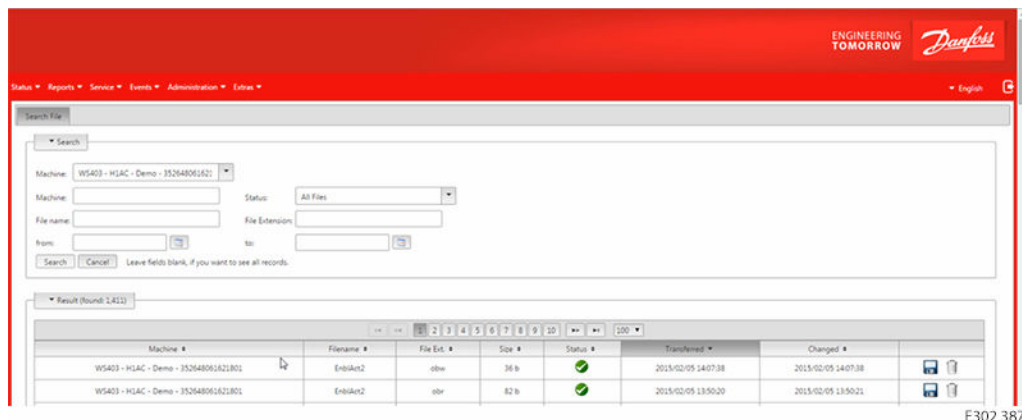
F302 386

- Upload the files on the selected machine.



## Service

5. To verify if the files is correctly Uploaded on the selected device go to: **Service > Device > Upload Files > Search, Delete**
6. Check in the list if the files selected have a Status with the green icon.



F302 387

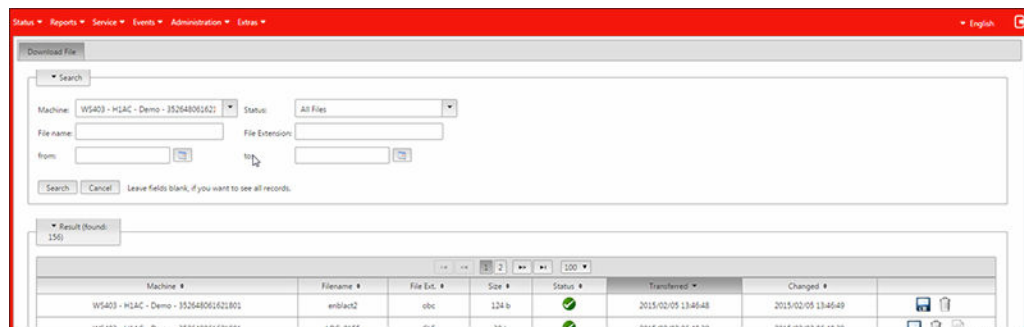
### Response on triggered object dictionary read [.obc]

File contents [Read-only]:

- Line starts with colon ':'
- Object dictionary index (e.g. 0x3333)
- Comma ','
- Object dictionary sub-index (e.g. 0x38)
- Comma ','
- Read value in decimal notation.
- Comma ','
- Unix time stamp of time of reading (UTC)
- Semicolon ';'.
- Line end <CR><LF>
- If the file is not deleted from the server. A subsequent read command adds a new line to the file. The time stamp can be used to differentiate between the various read actions.

The files are located in:

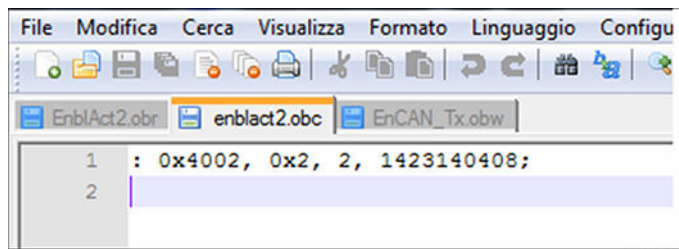
- **Service > Device > Download File**



F302 388

Select the 'obc' file, click on the save icon, save the file and open it with an editor (i.e. Notepad++):

## Service



F302 389

### Setup the transmission data

This configuration must be stored inside the Unit.

On the portal it is only necessary to download a text file to the unit. This file must have the extension .obw; the name of the file should be 8 digit without spaces or special characters.

The structure of the file must be aligned to the variable we created inside the unit configuration.

The obw structure is: **colon**→ **variable type** → **variable no.** → **value** → **comment**

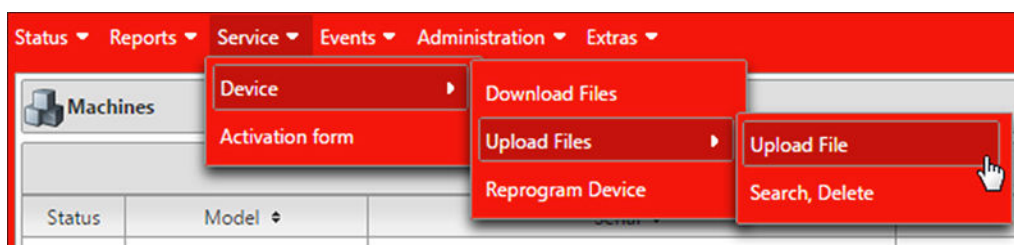
```
:0x4006,0x02,0x1BC ; Set CAN MSG ID to 0x1BC 11 bit
:0x4002,0x02,0x18 ; Set the content to 1th byte of CAN MSG
:0x4002,0x03,0x29 ; Set the content to 2th byte of CAN MSG
:0x4002,0x04,0x3A ; Set the content to 3th byte of CAN MSG
:0x4002,0x05,0x4B ; Set the content to 4th byte of CAN MSG
:0x4002,0x06,0x5C ; Set the content to 5th byte of CAN MSG
:0x4002,0x07,0x6D ; Set the content to 6th byte of CAN MSG
:0x4002,0x08,0x7E ; Set the content to 7th byte of CAN MSG
:0x4002,0x09,0x8F ; Set the content to 8th byte of CAN MSG
:0x4002,0x0A,0x01 ; Set 0x01,Trigger to send CAN MSG
```

F302 390

### Transfer the data

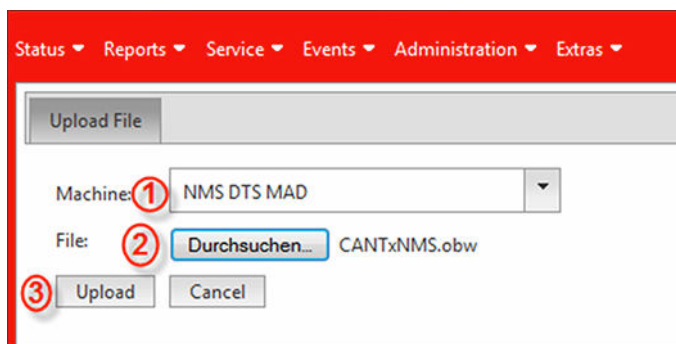
This file can be transferred via the portal to the remote unit.

1. Select the **Upload file** Tab.



F302 391

2. Then select the unit (1), the file (2) and start upload (3).



F302 392

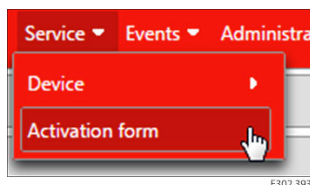
## Service

Now the data described inside the .obw file will be transmitted to the selected remote unit and provided on the CAN bus.

## Activation form

All WS unit must be activated on DTS portal in order to be used. The activation of the unit is made by the portal administrator accessing the Activation form.

To **Activation form** select: **Service > Activation form**



## Billing address

The Billing Address information module is already prefilled with the information you provided during the registration of the portal administrator.

## Activation data

Fill in the **Activation Data** section:

**Purchase number:** Enter your own reference number which is printed on the contract confirmation and the invoice later.

**Hosting:** Choose the data plan you want to assign to the machine

Data Plan Low include only Real-time mode.

Data Plan High include Real-time and Data Logging/File Transfer modes.

For more information about Operating modes see TI document L1426375.

Click on ? to see more details about the selected data plan.

## Service

Hosting:

Data Plan Low 24 Month

?

Serial No.\*:

IMEI\*:

Payment Data

Payment method:

Invoice

Invoice will be sent via email.

Next

Clear

**Data Plan Low 24 Month**

Web Portal Hosting Monthly license base fee per communication unit for the Danfoss Telematics Solutions Real-Time Hosting - Time limit / session: 4 hours (automatic logout) - Included Real-Time data volume: 500 MB (additional MB: 1.32 USD/100MB); GSM/GPRS UMTS/HSPA/HSDPA provider fees are not included in this item and will be invoiced separately. General Term of the contract: 12 months Invoicing: via e-mail The minimum tariff option contract term is 24 months. If none of the parties cancels the contract in writing at least 3 months prior to the end of the current term, the term of the tariff option shall be extended automatically by further periods of 12 months.

F302 396

Please read all the **Data Plan** details before to continue.

**Serial No:** WS serial number

**IMEI:** WS IMEI number

Both Serial No and IMEI are indicated in the device label as showed below:



F302 397

Click the **Add** push button to confirm the SN and IMEI, it is possible to activate more than a single device at the same time by adding more device, a list of device is created:

Serial No.\*:

IMEI\*:

Add

?

Serial No.	IMEI	delete
1445006	352648064994742	

F302 398

Invalid IMEI, wrong IMEI or unit already activated generate a warning message, i.e.:

☒

The IMEI is invalid (15 numbers in the range of 0 - 9)

Serial No.\*:

1234

IMEI\*:

1234

Add

?

F302 399

## Service

☒ A device with this IMEI is already activated. Please check the entered IMEI.

Serial No.\*:  IMEI\*:

F302 400

## Payment data

**Payment Data**

Payment method:

Invoice will be sent via email.

F302 401

Choose the payment method between:

- Invoice
- Credit Card

Payment method:

Invoice will be sent via email.

F302 402

The invoice will be sent via email.

Click **Clear** push button if you want to remove all Activation Data. Click on **Next** push button to go in the 'confirmation' phase.

F302 403

A contract overview will be showed with details about data plan selected and unit/units that will be activated.

Activation form **Confirmation**

Quantity	Item	Unit price	Sum
<b>Monthly Fees</b>			
1	Data Plan Low 24 Month IMEI: 352648064994742	20.00 USD	20.00 USD
	<b>Sum</b>		20.00 USD

By clicking Send you accept the Terms and Conditions [\(pdf\)](#) and the contractual agreements<sup>1</sup>.

<sup>1</sup> Contractual Agreement  
Additional costs for exceeding max. volume or roaming charges will be invoiced separately by Proemion. All prices in this order form are without Value Added Tax or Sales Tax. Additional plan options are always available and can be activated by next billing. Termination of individual options is only possible after the contract ends. Only the General Terms and Conditions for Proemion communications services and price lists apply. The contractual relationship is created when Proemion confirmed your order. Contractor is: Proemion Corp. 711 E. Monument Ave., Ste 303 Dayton, OH 45402 phone: +1 937-555-2211.  
www.proemion.com For technical questions refer to: support.mcan.com / support@proemion.com

F302 404

Click **Back** push button if the information displayed are not correct or you want to activate more devices.

Click **Send** push button to confirm the activation.

## Service


The **Create Machine** function is not required because newly activated devices are automatically assigned to your portal with the device and machine after activation with the Activation form. You can then configure them to your requirements with the 'Manage Machine' function (see Administrator section).

### Confirmation e-mail

After the confirmation, in few minutes, you will receive an email that indicate that the activation process was successfully completed and an attachment include the Data Plan, device activated, payment method details.

An example is showed below:

### Activation Form



**Client**  
 Company: Danfoss Energy Services (UK) Limited  
 First Name: John  
 Last Name: Smith  
 Street: 100 Airports Way  
 Zip/Town: E14 6AB London  
 Country: UK  
 Phone:  
 Fax:  
 E-Mail: john.smith@danfoss.co.uk  
 Tax ID:

**Purchase number**

**Devices for activation**  

Serial number (S/N)	IMEI
1517001	352648068327352

**Usage fee**  
**Data Plan Demo**  
 May only be used for Danfoss sales demo units! Web Portal Hosting Monthly license base fee for the Danfoss Telematics Solutions - Duration of data storage: 3 month - included the transfer volume: 20 MB / month (additional MB: 1.32 USD/1MB); Real-Time Hosting - Time limit / session: 4 hours (automatic logout) - included Real-Time data volume: 500 MB (additional MB: 1.32 USD/100MB); General Term of the contract: 12 months Invoicing: via e-mail The minimum tariff option contract term is 12 months. If none of the parties cancels the contract in writing at least 3 months prior to the end of the current term, the term shall be extended automatically by further periods of 12 months.

**Payment method**  
☐ Credit Card  
 (We authorize you to access my/our account to cover due payments. This authorization can be revoked at any time. If my/our account does not have sufficient funds to cover the payment, the custodian financial institution is not obligated to honor the debit orders. Partial payments are not accepted.)  
 Cardholder:  
 Credit card type:  
 Credit card No.: XXXXXXXXXXXXX  
 Expiry date: XX/XX XXXX/XX

☒ Invoice  
 Terms of payment: 90 days net

**Contractual Agreement**  
 Additional costs for exceeding max. volume or roaming charges will be invoiced separately by Proemion. All prices in this order form are without Value Added Tax or Sales Tax. Additional plan options are always available and can be activated by next billing. Termination of individual options is only possible after the contract ends. Only the General Terms and Conditions for Proemion communications services and price lists apply. The contractual relationship is created when Proemion confirmed your order. Contractor is: Proemion Corp., 311 E. Monument Ave., Ste 310 Dayton, OH 45402, phone: +1 937-558-2211, www.proemion.com For technical questions refer to: support@proemion.com / support@proemion.com

Request was created and sent the: 2015/05/26
Page 1

F302 405



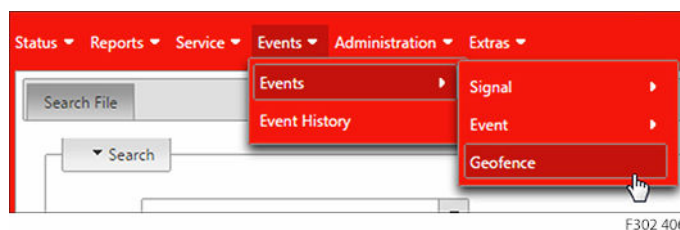
## Events

## Geofence

Geofence enables you to create a kind of *fence*. If your vehicle leaves an area defined by you, you automatically receive a notification (email or text message). The Geofence functions using GPS. You can use this feature e.g. for construction machinery so that you know immediately if machines are stolen or for agriculture machinery if the machine is working in a selected geographical area or has moved to the next.

For 'Geofence' select:

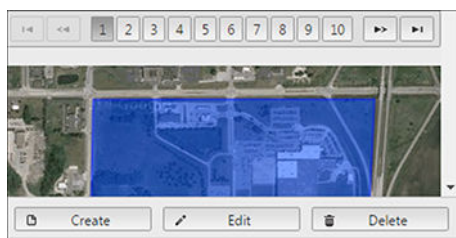
- **Events > Events > Geofence**



F302 406

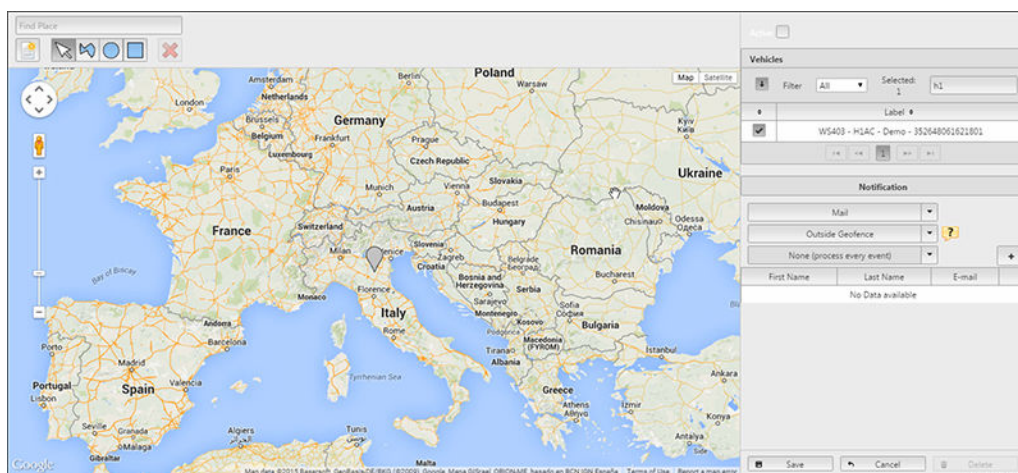
### Create a Geofence

1. To create a new Geofence, click on **Create** push button at the bottom right of the window.



F302 407

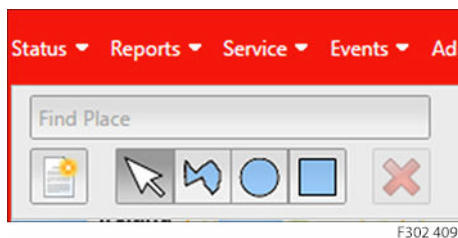
This opens the following window:



F302 408

## Events

2. Select a location directly using **Find Place** box.

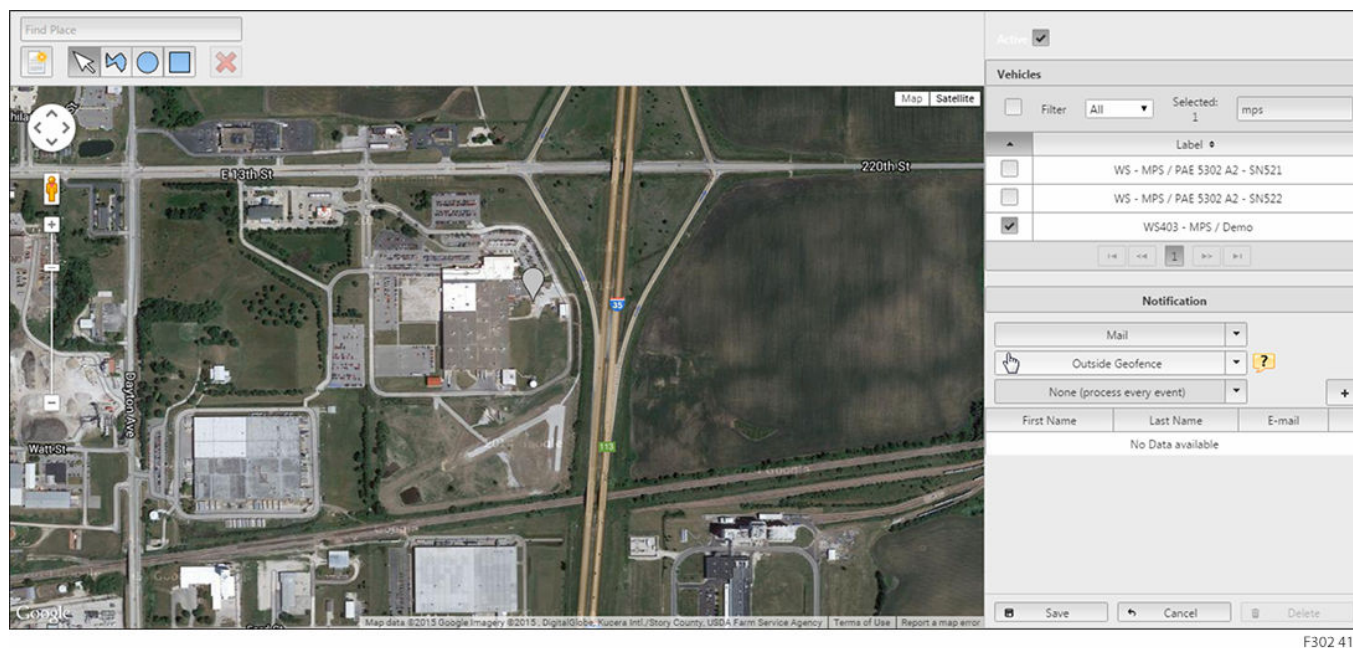


3. Check the **Active** box if you want to activate the Geofence when it is created.



## Vehicles

Select the vehicle/machine you want to add and check it (double-click on the vehicle selected to see the last valid position directly on the map).



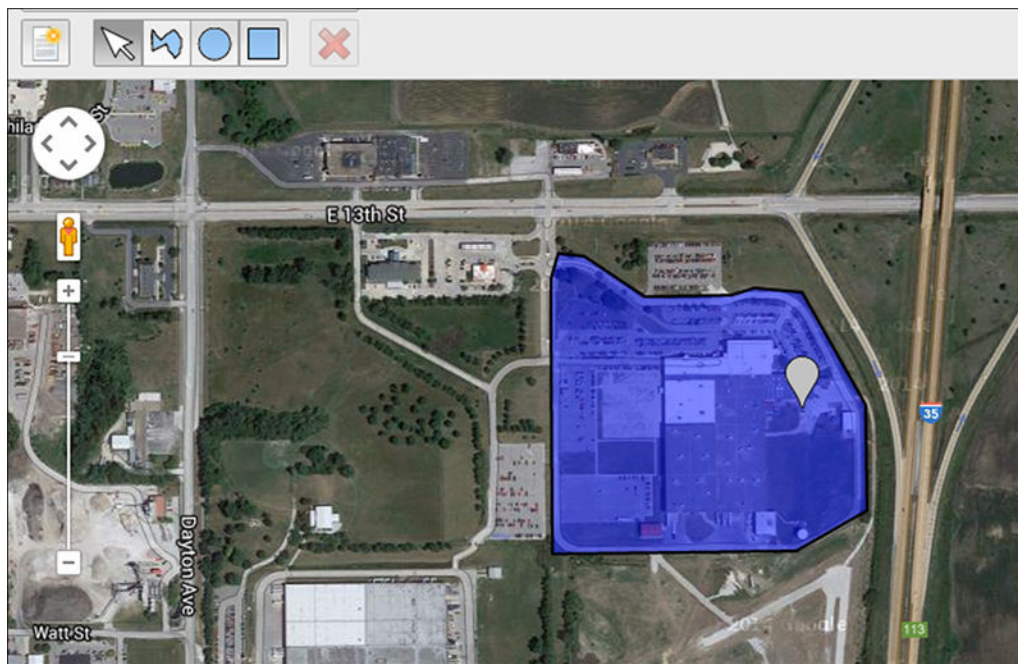
## Define area

1. You can create manually the Geofence by using the polygon (no limit in the number of vertex), circle or rectangle tool, everywhere outside the geographical area indicated in blue is outside the Geofence; you can use the cursor tool to move, mark or edit the geofence.





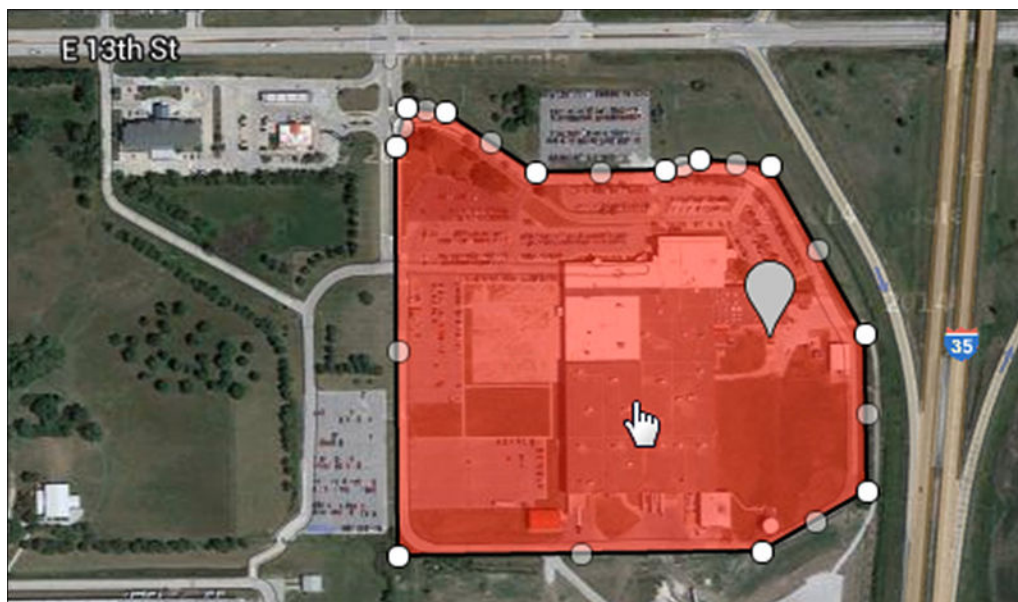
## Events



F302 413

You can add more Geofences as you desire.

2. Click the Geofence on the map to select it, now you can move or edit it:








F302 414

3. When the Geofence is selected the delete icons became active, you can delete the selected Geofence by pressing the **x** or all Geofence by pressing **Remove all geofences** command:



F302 412

## Events

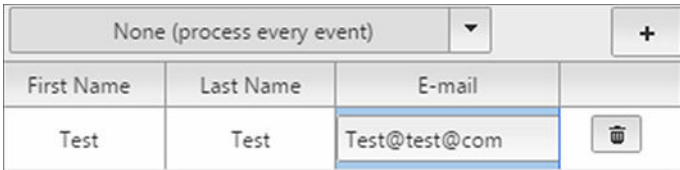
Symbol	Term	Explanation
 F302 415	Cursor tool	With the cursor tool, you can move the individual marking points on the map.
 F302 416	Polygon tool	You can use the polygon tool to flexibly distribute your points over the map.
 F302 417	Circle tool	With the circle tool, you can create a circular
 F302 418	Geofence.	Rectangle tool With the rectangle tool, you can create a rectangular Geofence.
 F302 419	Delete selection	With the 'Delete selection' function, you can delete either a whole Geofence or individually marked points.

## Notification

You can use the **Notification** fields to choose how you want to be informed about an event.

General	Explanation
Mail	Notifications are sent to your email address
Text message	The notification is sent to your cellphone number (for this you need an "Email to SMS Gateway". For more information on this, contact your mobile network provider.

After selecting the type of notification, click on + and enter your first name, surname and email address.

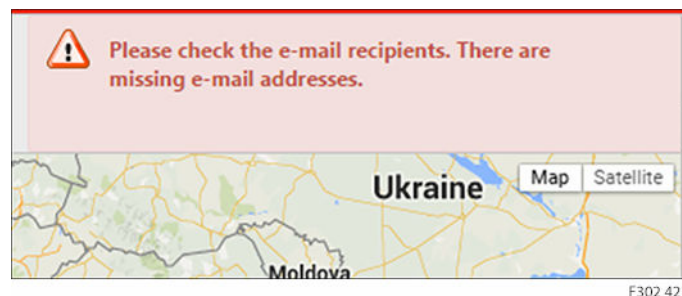


The form shows a dropdown menu set to 'None (process every event)' with a '+' button to the right. Below is a table with columns: First Name, Last Name, E-mail, and a trash icon. The table contains one row with the values: Test, Test, Test@test.com.

F302 420

Confirm with +.

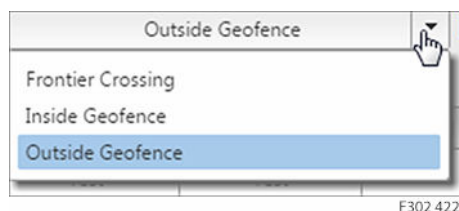
If some field are missing a warning message appear with details:



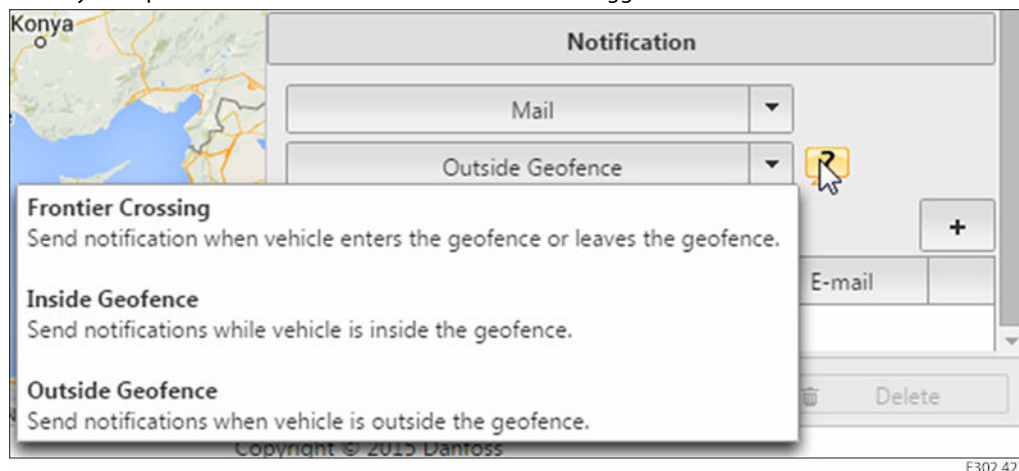
## Event trigger

In the drop-down menu, you can choose between several options when an automated message should be sent to you:

## Events

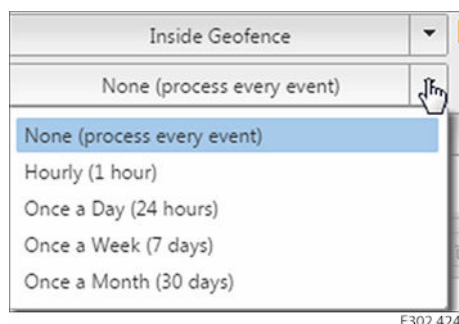


The ? symbol provides more information about the event trigger:



## Interval

Use the Interval function to choose between inside or outside the area under **Event Trigger**.



Term	Explanation
None (process every event)	Sends you every event which occurs.
Hourly (report event every hour)	Sends you the current event at most every hour.
Once a Day (report event every 24 hours)	Sends you the current event at most every day.
Once a Week (report event every 7 days)	Sends you the current event at most every week.
Once a Month (report event every 30 days)	Sends you the current event at most every month.

## Save geofence

- After you have defined the Geofence area you want and selected the type and interval of notification,
  - Click on the **Save** push button.
  - Click on **Cancel** push button to back to Geofence overview list.



## Events

This opens a new window in which you can enter a name and a description of the Geofence.

A dialog box titled 'Save' with a close button (X). It contains two input fields: 'Name' and 'Description'. Below the fields are two buttons: 'Save' and 'Cancel'.

F302 426

2. Then click on

- **Save** push button
- **Cancel** push button to back to Geofence overview list.

Now, in the Geofence overview, you can see all available Geofence profiles.

Active ▾	Name ▲	Description ▾
	Backhoe	Location of backhoe
	Danfoss NMS	Test Fence

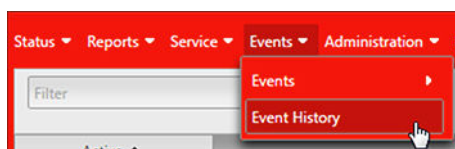
F302 427

In the **Active** column, you can switch between Active (green led) and Inactive (gray led).

## Event history

The **Event History** gives you a detailed overview of the events that have occurred with your machine.

1. For **Event history** select: **Events > Event > History**



F302 428

You can display Event History differentiate between Trigger and Process by selecting the specific tab.

A screenshot of the 'Event History' interface. It shows two tabs: 'Event History - Trigger' and 'Event History - Process'. Below the tabs is a search bar and several filter fields: 'Event:', 'Signal:', 'Event service:', 'Event filter:', 'Machine:', 'Machine group:', 'from:', and 'to:'. There are 'Search' and 'Cancel' buttons at the bottom.

F302 429

## Events

- Search for a particular event by limiting the selection criteria, so for example select the machine and the specific type of event:

The screenshot shows a search form with three dropdown menus. The 'Event' dropdown is set to '-'. The 'Event service' dropdown is set to 'Backhoe'. The 'Machine' dropdown is set to 'Danfoss NMS'. Below the 'Machine' dropdown, 'demo fence' is also visible. The form is labeled F302 430.

and/or event service:

The screenshot shows a search form with three dropdown menus. The 'Event service' dropdown is set to '-'. The 'Machine' dropdown is set to 'Mail'. The 'from' dropdown is set to 'SMS'. The form is labeled F302 431.

and other criteria in a specific period of time.

If you leave all windows blank, all events will be listed.

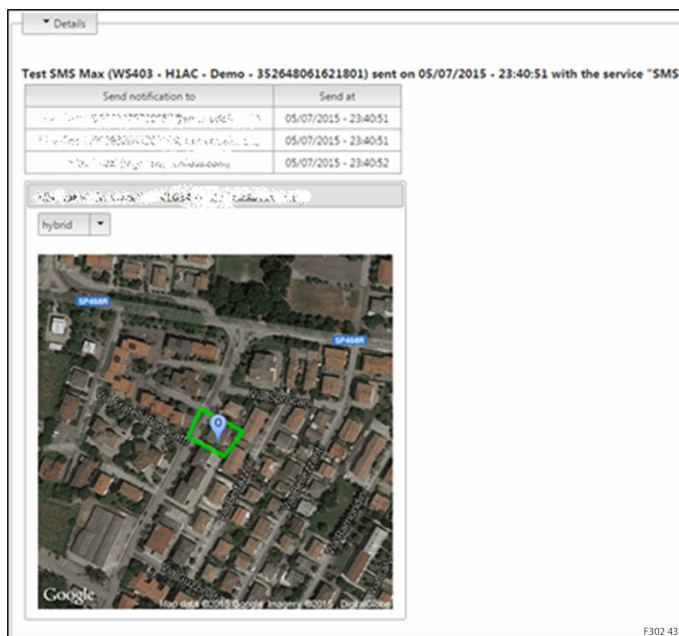
▼ Result (found: 42)				
Event Trigger ▾	Machine ▾	Machine time ▾	Received time ▾	
Test SMS Max	WS403 - H1AC - Demo - 352648061621801	05/07/2015 - 23:40:51	05/07/2015 - 23:40:51	<a href="#">Details</a>
Test SMS Max	WS403 - H1AC - Demo - 352648061621801	05/07/2015 - 23:35:50	05/07/2015 - 23:35:50	<a href="#">Details</a>

F302 432

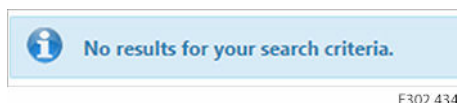
Event	Explanation
Event trigger	Indicates what vehicle data triggered the event.
Machine	Indicates the machine on which the event occurred.
Machine time	Indicates the time at which the CAN message was received.
Data received	Indicates when Proemion received the data.
Details	<b>Details</b> opens a new window underneath the event table.

## Events

- Click on **Details** push button opens a new window underneath the event table:



- If the criteria set on Search section not produce result a feedback message is shown:



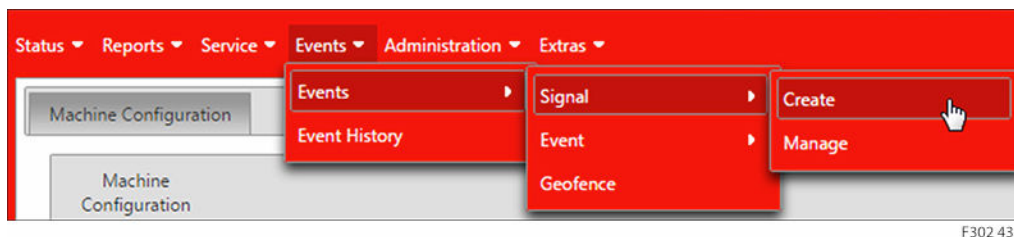
## Signal

The Signal function enables you to record specific vehicle behaviors. For instance, a signal is triggered if the oil temperature reaches a particular value. This signal can then trigger notification by email as an event.

### Create signal

Use this function to create a new signals function on DTS portal.

- For **Create** select: **Events > Signal > Create**



This opens a new window in which you can enter the corresponding signal parameters.



## Events

F302 436

Designation	Explanation	
Name	Enter a name you have chosen for the signal.	
Controller	Select <b>Machine Data</b> .	
Filter	Select <b>SPN Value</b> .	
Add	Data ID:	Choose which machine value you want to create a signal for.
	Operator:	Choose when the signal should be triggered.
		<: smaller than "value"
		>: greater than "value"
		=: equal to "value"
	Value:	Choose a limit value.
Name	Enter a name you have chosen for the signal.	
Comment	You can create a comment for the signal here.	

2. Click on **Add** to choose the machine value.

Several data IDs in one signal are linked by a logical OR. This means that if at least one comparison is true, the signal is enabled.

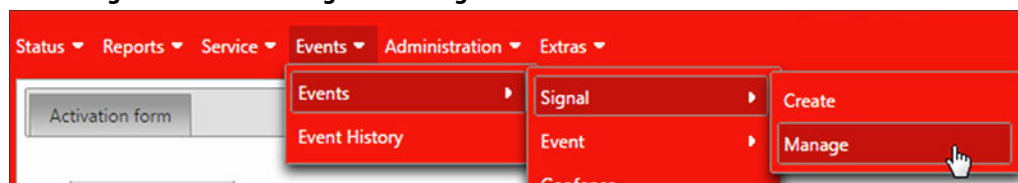
3. Click on **Save** push button to adopt the signal created;

4. click **Cancel** push button to back to Machine Overview.

### Manage signal

Use this function to view and edit the signals you have created.

For **Manage** select: **Events > Signal > Manage**



F302 437

Use the Search function to search for a particular signal. If you leave the fields blank and select **Search**, all the signal profiles are listed.

Using **Details** after the corresponding line, you can edit or delete the profile.

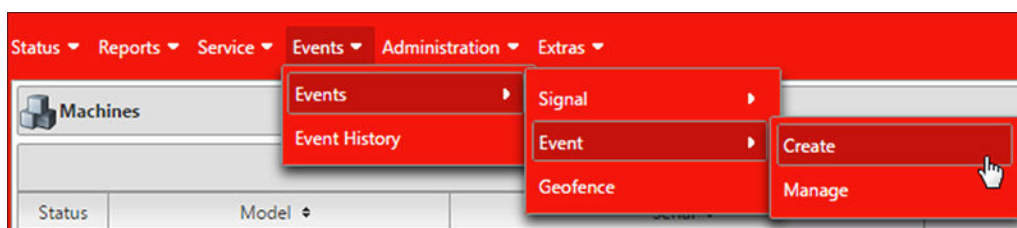
## Events

### Event

The **Event** function accesses a signal you have created. This makes it possible to edit the signal and send it to you e.g. by email.

#### Create event

1. For **Create** select: **Events > Events > Create**



F302 438

F302 439

Designation	Explanation	
Active	Check this box to enable or disable the event.	
Name	Enter a name for the event.	
Machine group	Select one of your machine groups. Then select the signal you want to be informed about.	
Signal	If several signals are combined in one event, they are linked with a logical AND. Therefore, all the signals must be enabled to trigger an event.	
Service	Choose what you want to happen when a particular signal is triggered (for instance notification by email or text message).	
Configuration	Receiver user group	Choose the user group to be informed. To ensure the user group is shown here, define it as a 'Configurative group' (see Chapter Error! Reference source not found. 'Error! Reference source not found.').
	Color for enabled signal	Choose the font color for the triggered signal (enabled) which will be used in the email. This option is only available under the 'Status change' setting.
	Color for disabled signal	Choose the font color for the triggered signal (disabled) which will be used in the email. This option is only available under the 'Status change' setting.
Send message if	Status change:	Sends a message when the limit value of the signal is enabled or disabled again.
	Enabled signal:	Sends messages as long as the signal is enabled.



## Events

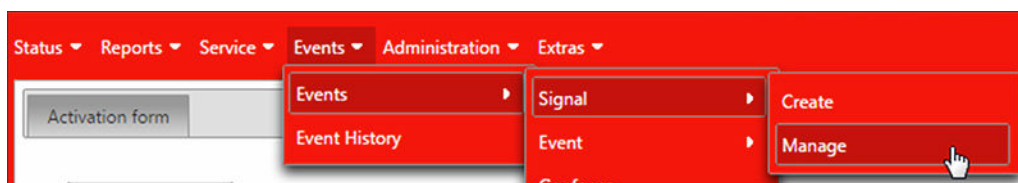
Designation	Explanation
Interval	Only available with 'Enabled signal'. This determines the minimum intervals at which you want to receive the message.
Comment	Enter a comment for the event.

- Click on **Save** to adopt the event.

### Manage event

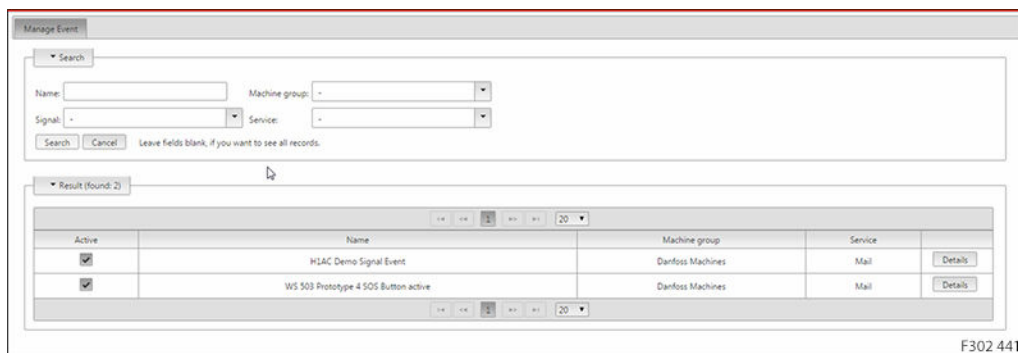
Use this function to view and edit the signals you have created.

- For **Manage** select: **Events > Signal > Manage**



F302 437

- Use the Search function to search for a particular event. If you leave the fields blank and select **Search**, all the configured event profiles are listed.



F302 441

## Events

3. Using **Details** after the corresponding line, you can edit or delete the profile.

Details

Active: ☒

Name\*: H1AC Demo Signal Event

Machine group\*: Danfoss Machines

Signal

Signal*	
H1AC Demo - Event signal	

Add ?

Service\*: Mail

Configuration

Receiver User group: Danfoss ADC US

Color for active signal: ?

Color for inactive signal: ?

Send message if: Signal is active ?

Interval: Once a Day (24 hours)

Comment:

Update Delete

F302.442

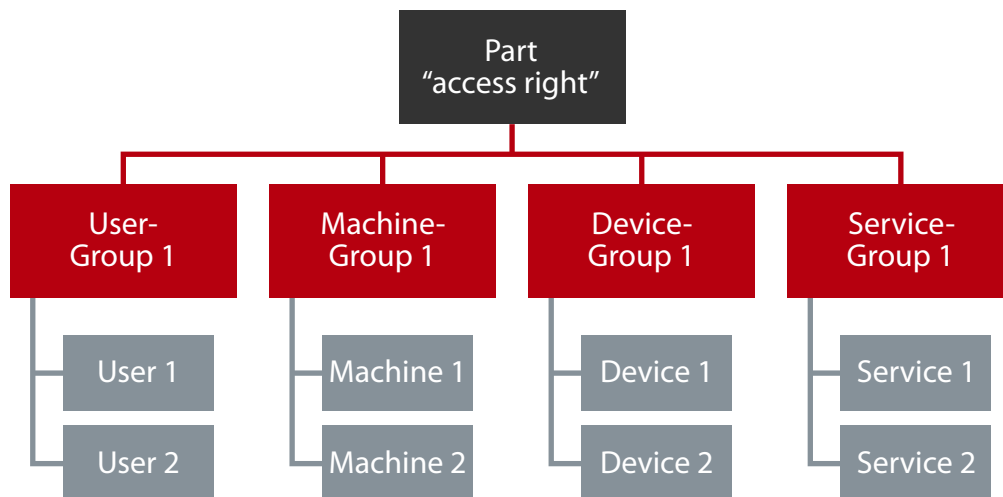
The Receiver User group must be set as configurative.

Add this Receiver User group in the Administrator Role or in general for the role that have assigned this service functionality.

## Administration

### Entities

The following diagram gives a clear description of the hierarchy of the links to your devices.



P301 830

### Creating Danfoss Telematics Solutions Sub-Accounts

As a Danfoss Telematics Solutions customer using the WS403, on your DTS portal account you have the possibility to create new sub-accounts for your organization or end-customers. These sub-accounts will only see the machines assigned to them. This may be a subset of all machines on your account.

Together with the registration of your company portal a set of resource are created and available for further administration.

Username	<b>Your</b> admin username
Password	<b>Your</b> admin password
Admin User group	<b>Your company</b> Admin Users Group
User group	<b>Your company</b> Users Group
Machine group	<b>Your company</b> Machines Group
Device group	<b>Your company</b> Devices Group
Organization unit	<b>Your company</b>
Access rights (both plan)	<b>Your company</b> User Role
Access rights (high plan)	<b>Your company</b> Data Plan High User Role
Access rights (low plan)	<b>Your company</b> Data Plan Low User Role
Admin Role	<b>Your company</b> Admin User Role

The services of our system are based on a low and high data plan.

The low data plan includes the PLUS+1® Service Tool support and the real-time web services including Geofencing. Additional to this services the high data plan give the opportunity to log CAN bus information of the connected local system.

Belongs to this two option we have access rights for low and high data plan user. It is possible to allocate this rights separate or in combination.

## Administration

User Group Role	Access Rights	
	Low Data Plan	High Data Plan
Admin User Role	X	X
User Role	X	X
High Data Plan user Role		X
Low Data Plan user Role	X	

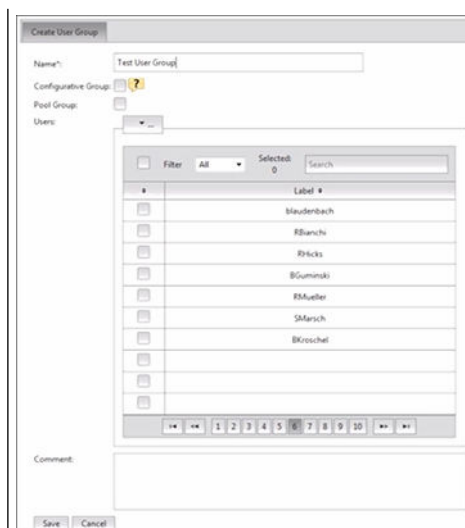
## Create User Group

- Go to the menu item: **Administration > Entities > User Group > Create**



F302 443

- Type in the name for the new user group. (e.g. the company name of your customer plus "Users").  
You do not need to add a user to this group now.



F302 444

### Configuration Group:

If this box is not checked this group is used only as login group. If this box is checked this group can also be used as receiver for event messages

### Pool Group:

If this box is checked the administrator can see and manage member of this group, but don't see this group in his overview.

- Click on **Save** push button.

## Administration

### Create Machine Group

1. Go to the menu item: **Administration > Entities > Machine Group > Create**



F302 445

2. Type in the name for the new machine group.

You should re-use the name you assigned to the user group and add 'Machines'.

3. Add the machine(s) you would like the new user(s) to see.

You do not need to add machines here, especially if the user should activate the WS403 devices by himself using the Activation form.

F302 446

#### Pool Group:

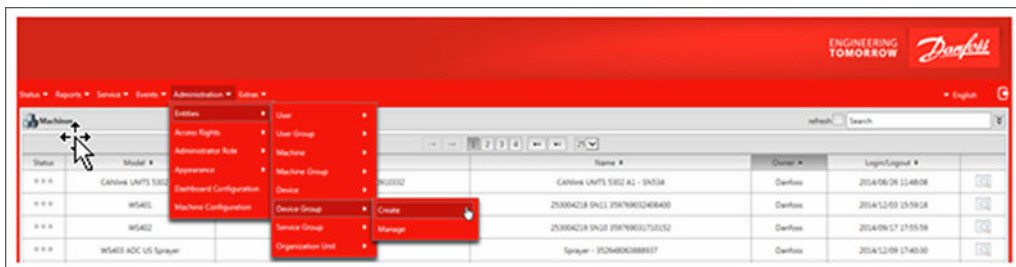
If this box is checked the administrator can see and manage member of this group, but don't see this group in his overview.

4. Click on **Save** push button.

With the machine group you can separate different departments or groups of vehicles in an organization.

### Create Device Group

1. Go to the menu item: **Administration > Entities > Device Group > Create**



F302 447

## Administration

### 2. Type in the name for the new device group.

You should re-use the name you assigned to the user group and add 'Devices'.

### 3. Add the device(s) you would like the new user(s) to see.

You do not need to add machines here, especially if the user should activate the WS403 devices by himself using the activation form.

### 4. You have to add the devices which are assigned to the machines added to the machine group above, otherwise no Real-Time Diagnosis is possible!

F302 448

#### Pool Group:

If this box is checked the administrator can see and manage member of this group, but don't see this group in his overview.

### 5. Click on **Save** push button.

## Create Organization Unit

### 1. Go to the menu item: **Administration > Entities > Organization Unit > Create**



F302 449

### 2. Select your organization unit as Parent.

### 3. Type in the name for the new organization unit (e.g. the company name of your customer).

## Administration

4. Select the new created machine and device groups as default machine and device groups.

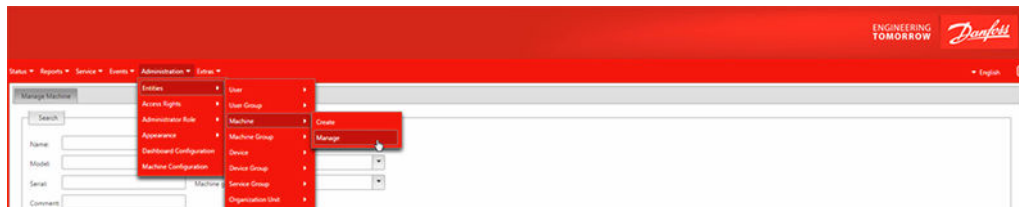
F302 450

5. Click on **Save** push button.

- When the customer activates a WS403 device by sending the activation form, the devices and machines are automatically assigned to the default machine and device groups by the Danfoss Telematics Solution system.
- If you have assigned devices and machines to the new groups, you should use the Manage Device and manage Machine function and assign the devices and machines to the new organization unit if needed.

## Manage Machine

1. To Create/Manage a machine, go to the menu item: **Administration > Entities > Machine > Create / Manage**



F302 510

Use the **Search** function to search for a particular machine. If you leave the search fields blank and click on **Search**, all machines are shown in an overview.

## Administration

F302 511

- Click the push button **Details** to visualize/modify the individual machines details.

F302 512

Field	Explanation
Name:	Enter the name of your machine.
Serial number:	Enter for instance the serial number on the machine.
Owner:	Enter the owner of the machine.
Model:	Enter the machine model.
Photo:	Upload for instance a photo of your machine.
Machine group:	Select the machine group to which you want to add your machine ( <b>each machine has to be assigned to at least one group</b> ).
Devices:	Select the device mounted on this machine (usually correctly preconfigured).
Controller:	No setting necessary.
Organization unit:	Select the organization unit under which the machine will operate. Description Enter a description of your machine.

- Then click on
  - Save** to create the new machine or
  - Cancel** to cancel the entries.

Normally, the **Create Machine** function is not required because newly activated devices are automatically assigned to your portal with the device and machine after activation with the **Activation form**. You can then configure them to your requirements with the **Manage Machine** function.

## Create and Manage Roles



## Administration

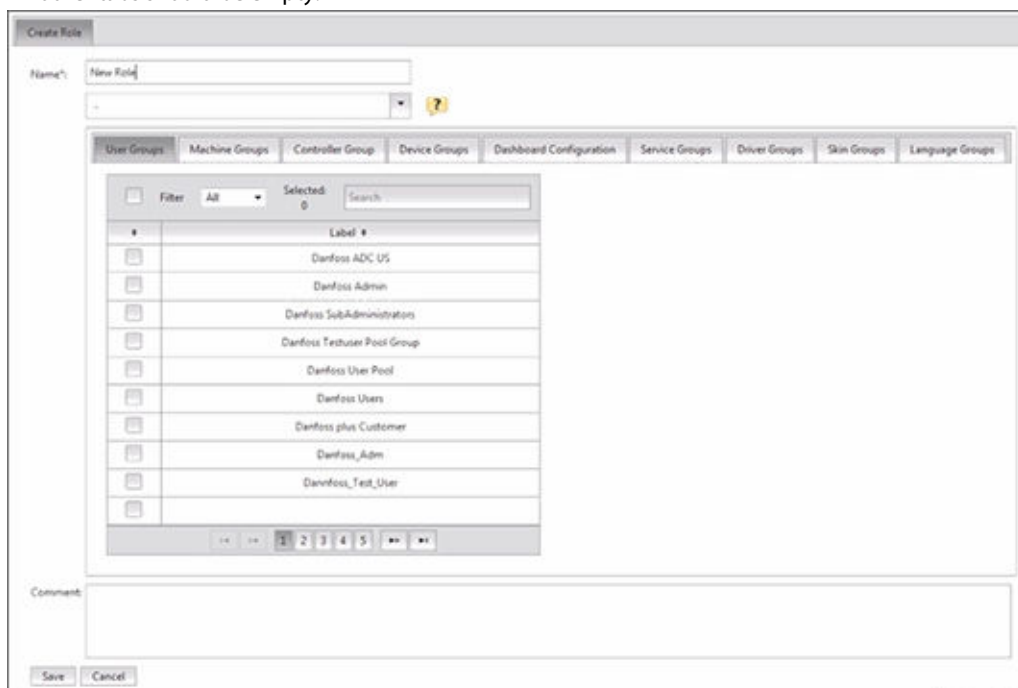
### Create the end-customers user role

1. Go to the menu item: **Administration > Access Rights > Role > Create**



F302 451

2. Type in the name for the new role.  
You should re-use the name you assigned to the organization unit.
  3. Add the new generated groups in the tabs User Groups, Machine Groups and Device Groups.
  4. Add the required service group(s) for example 'High Data Plan user Role' to the tab Service Group.
  5. Add the language group 'Standard Languages' to the tab Languages Group
- All other tabs should be empty.



F302 452

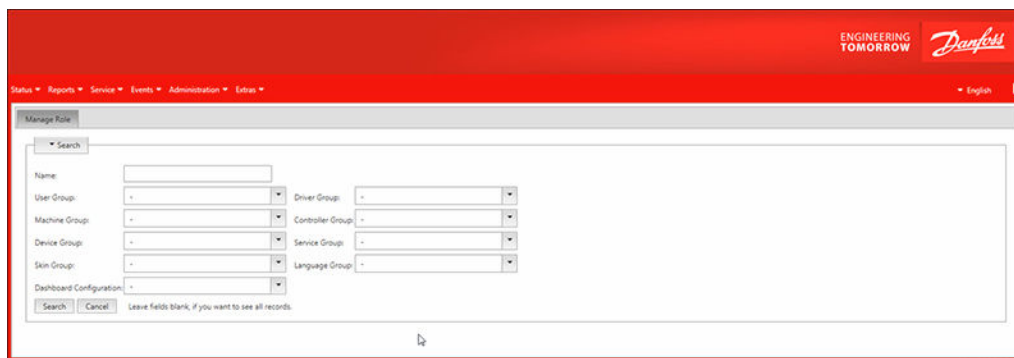
6. Click on **Save** push button.

### Manage your runtime role

In order to be able to see the customer's machines in your account, you have to add his machine and device groups to your runtime role.

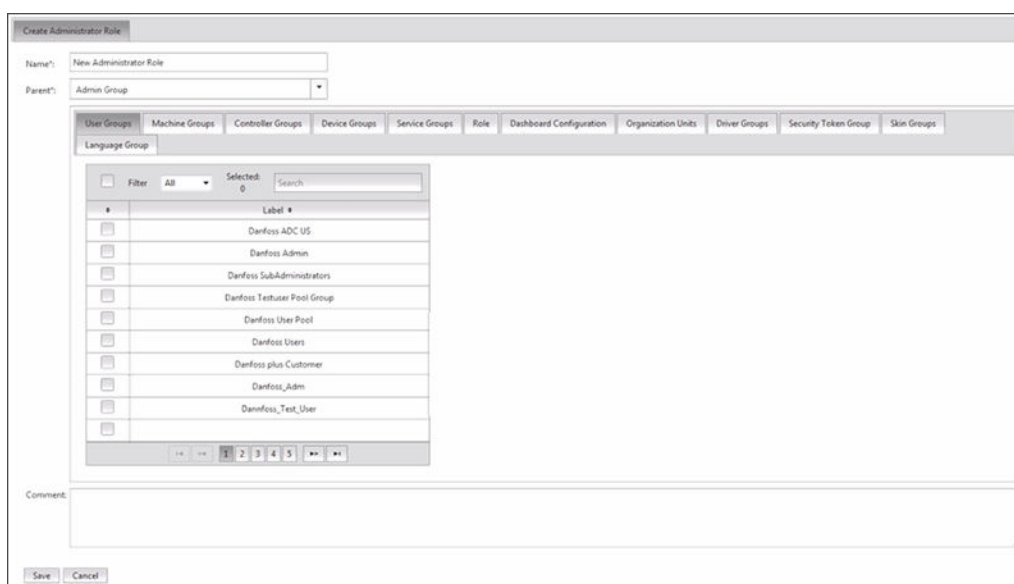
## Administration

1. Go to the menu item: **Administration > Access Rights > Role > Manage**



F302 453

2. Search for the roles and select your administration role (normally: Company name Administration)
3. Add the new generated groups in the tabs Machine Groups and Device Groups to the existing entries.



F302 454

All other tabs should not be changed.

4. Click on **Save** push button.

## Create the end-customers admin role

If the customer shall organize his web portal by himself it is necessary to create also a customer administration role.

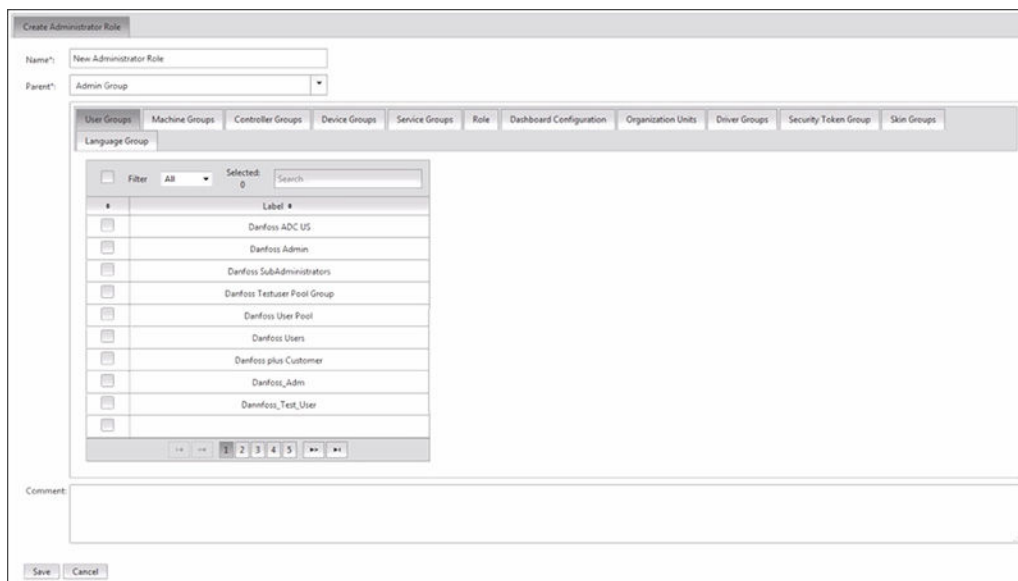
1. Go to the menu item: **Administration > Administrator Role > Create**



F302 455

## Administration

2. Add the groups, roles, and the organization units to administrate.



F302 456

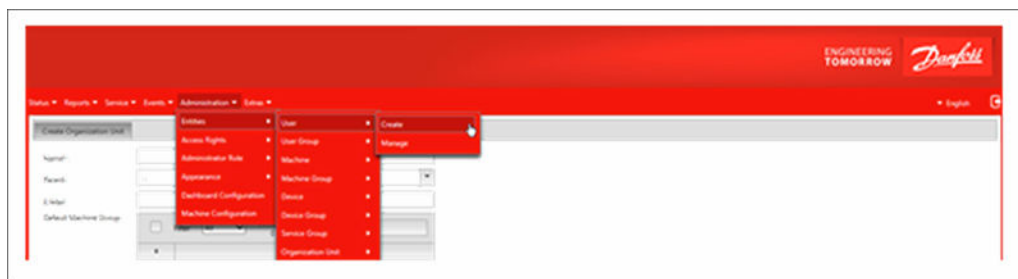
3. Press the **Save**.

Every time a new administrator role is created a parallel empty **Admin access rights Role** will be created as well.

4. Enter the menu: **Administration > Access Rights > Role > Manage**
5. Select the group with the same name like the created Administration role and control all tabs in the same way like before for the **Administrator Role**.
6. Open the created Administrator Righth role, select the role tabs and add the Administrator runtime role.

## Create User(s)

1. Go to the menu item **Administration > Entities > User > Create**



F302 457

2. Type in the desired username and password.  
Username has to be unique within the Danfoss Telematics Solutions system. You could choose an e-Mail address for example.
3. Enter Name and e-Mail address.
4. Assign the new user to the new user group created above.
5. Assign the new user to the new organization unit created above.
6. Set the other settings as required.  
The user specific environmental setup can be changed every time by the user entering the section: **Extras > Preferences**.

## Administration

F302 458

- Click on **Save** push button.

[Repeat this for every new user.](#)

## Test new account

- Log out your user.
- Log in with the new user name and password.
- Check the correct machine(s) are displayed in the machine list.

Status	Model	Serial	Name	Owner	Login/Logout
●●●	WS403	WS403 SN2438043 352648063889091	NMS MT WS403 SN2438043	Danfoss	2014/12/15 11:31:38
●●●	WS401	253004218 SN14 359769032408483	253004218 SN14 359769032408483	Danfoss	2014/12/15 08:09:19

F302 459

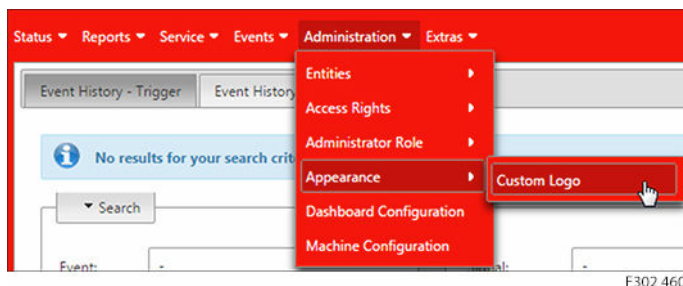
- Check that the device/machine is online.
- Test the new account with the PLUS+1® Service Tool software (the machine selected must be in real time connection mode).

## Design

### Custom logo

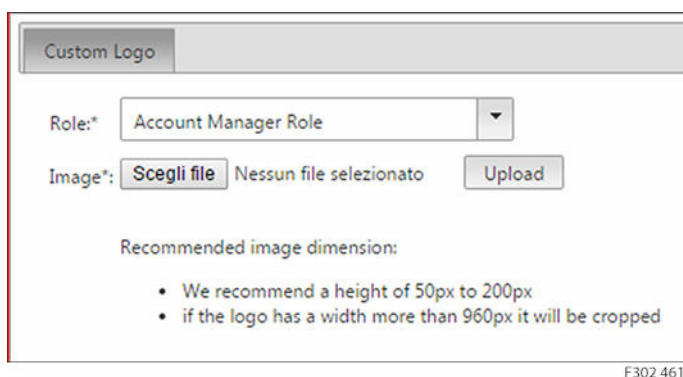
## Administration

1. Enter the menu (administrator) **Administration > Appearance > Custom Logo**



2. Select under which role you want to use your custom logo.
3. Select an image which is stored locally on your PC and upload it using the **Upload** push button.

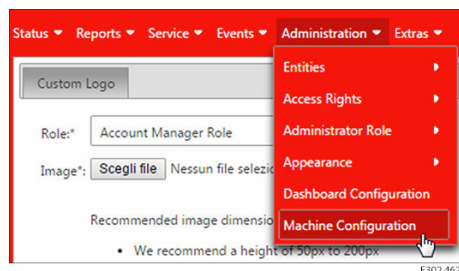
Optimal height is between 50px and 200px. Images which are wider than 960px are automatically cut.



## Machine configuration

Enter the menu (administrator)




- **Administration > Machine Configuration**



The Machine Configuration interprets the data the machine logs in the form of CAN messages. The messages are sent in the form of CLF files and the physical values are shown in the DTS portal.

The configuration determines where in the message for instance the oil temperature is shown. This message is then converted into a physical value. You have the option of having the files presented as physical values in an Excel spreadsheet. You can also upload the data to the DTS portal. Then they are interpreted by the portal.

## Administration

Machine Configuration				
Machine Configuration				
Name	Description	UUID	Latest Version	Edit
WS503 Demo4 Test Setup	First version	7369baa8-ab50-4d27-8a09-603afd21ff4b	0.0.7	
Track Machine Configuration	Testing Version 1	4cc00325-4eda-4ebf-9653-28a3a4439123	0.0.9	
Test Machine	Beta	93c204a8-b9d0-11e4-a71e-12e3f111a338	0.0.4	

F302 463

If you want to set up this DTS configuration, please download the data logging documentation available on DPS website and in case of problem contact the support.

The Machine Configuration file is called PDC and the idea behind is a configuration with history. After the initial preparation of the PDC, (if necessary) newer versions of the same PDC should be created. Any change leaves an entry along a "timeline". There is the concept of a beginning, a progress with various changes and an end. The whole growing construct always exist and will not be deleted. The PDC "grow" into the system and with a deletion many relationships must be released. Only Danfoss can delete the Machine Configuration uploaded on the portal, please contact Danfoss PAE for more information.

## System requirements

### Operation systems

- Windows 7 or higher
- Linux (is not official supported)
- Apple Mac OS (is not official supported)

### Computer desktop

- Internet Explorer 10 or higher
- Mozilla Firefox 30 or higher
- Google Chrome 34 or higher
- Apple Safari 7 or higher (browser is not official supported)

### Mobile platform

- (Tablet / smartphone)\*
- Apple iOS (Go to Desktop View)
  - Google Android (Go to Desktop View)

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\* Not all the DTS portal functionalities are compliant with mobile smartphone, tablet.

## Service and support

### Telematics service and support

For further information see our DPS website: <http://www.powersolutions.danfoss.com> or contact our support team [plus1helpdesk@danfoss.com](mailto:plus1helpdesk@danfoss.com)

The most recent WS driver, WS System tools and documentation are available for download from the DPS website Telematics section <http://powersolutions.danfoss.com/solutions/telematics/>.











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[www.hydro-gear.com](http://www.hydro-gear.com)

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[www.daikin-sauer-danfoss.com](http://www.daikin-sauer-danfoss.com)

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